FEBRUARY, 1956

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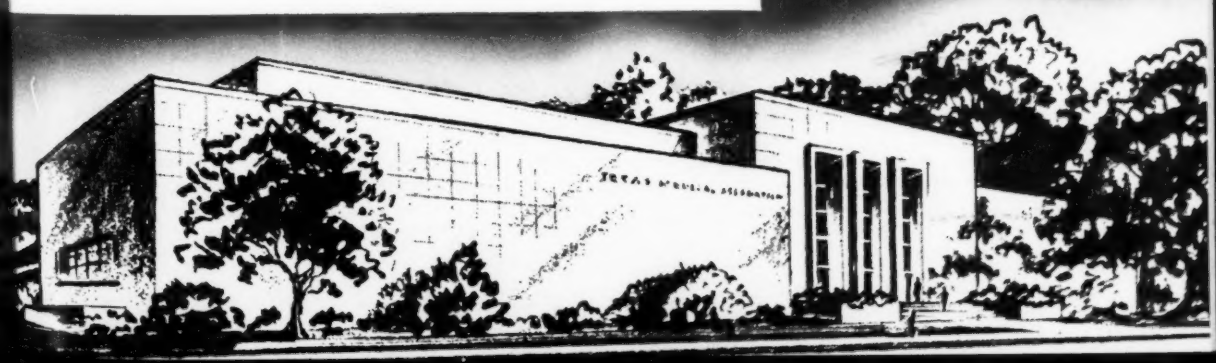

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President's Page

YOUR DUES—AND SOME RESULTING SERVICES

This is the time of year dues are discussed frequently, and I am astounded by some of the misconceptions regarding them. Many doctors believe that a major portion of Texas Medical Association funds go toward combating socialized medicine and solving legislative problems, whereas only about 2 per cent of the operating budget is thus expended. Of course, no Association funds are spent in political elections or to support any candidate for public office. Too, many doctors believe that officers of the Association have unlimited expense accounts. The lone provision for personal expenses is for the delegates to the American Medical Association. Your President as well as all other officers and members of boards, councils, and committees pay their own way to all meetings.

Our Trustees recognize their responsibility in the expenditure of the money you pay in membership dues, and they want you to know specifically where the money goes. They welcome inquiries and present each year to the House of Delegates an audit of income and expenditures that is published later in the *Journal* for your perusal.

It is appropriate to call attention again to the allocation of your $50 annual Association dues: general operating fund $33 (including the $3 designated in the By-Laws for the *Journal*), building $15, Woman's Auxiliary $1, and medical defense $1.

Operating funds are used to provide services to the 7,300 members of the Association in carrying out the programs of the organization; to pay salaries of the staff at the central office; and to maintain the headquarters building. The primary objective is to make it possible for doctors to keep abreast of current developments in medicine and to help them render better medical care to their patients. Anticipated expenditures for this year include: *Texas State Journal of Medicine,* $60,000 (about $50,000 of this will come from advertising); Library services, $31,000; annual session, $23,000 (about $10,500 of this will be paid by exhibitors); office expense, postage, and telephone, $21,000; taxes, $12,500; operation and maintenance of building, $10,300; legal and public relations services, $20,000.

I will not go into detail concerning the Building Fund. Briefly, our Trustees are making monthly payments of $2,500, of which $740 is interest. Substantial amounts have been paid back to the Medical Defense Fund and the General Fund. In addition, the Trustees paid $130,000 on the mortgage two years ago. At the present rate of payment, it appears probable that the mortgage will be cleared and the Association Funds repaid well ahead of the final due date.

I believe everyone will agree that the funds allocated to the Woman's Auxiliary and to medical defense return excellent dividends.

Let me emphasize that the financial affairs of our Association are in excellent hands and are in good order. The excess of revenue over expenditures in our operating funds is substantial. This feature is important because it provides the Board of Trustees with a margin for making adjustments and for undertaking projects as the occasion demands.

I also would like to call attention to the fact that the Texas Medical Association is constantly providing new services and improving those which currently exist. A determined effort has been made in recent months to remind members of the many fine services available. The visitation program to the various county and district meetings has been successful in this regard. More recently, a new exhibit, "Serving the Doctors of Texas," has been favorably received. I hope each of you will study this instructive display at our annual session in Galveston.

Now, a third medium of information is ready. It has gone to press and will be in your hands shortly. It is a brochure on the services of the Texas Medical Association that will be sent to every member. It is an attractive booklet covering a score of important services. I know you will appreciate the tremendous value of such a brochure and will give it a place of importance on your desk where it will be available to answer questions.

After you have evaluated the contents of this excellent brochure, I believe all of you will appreciate more fully the expenditure of your $50 Association dues.

J. Layton Cochran

TO IMPROVE PATIENT CARE IN TEXAS

One of the most difficult problems facing the medical profession today is the acute shortage of nurses, technicians, therapists, and other personnel for the many varied technical and professional positions associated with it.

Need for this professional personnel has increased tremendously with the growth of our hospital systems, which have more than doubled in the past ten years. The demand for health services likewise has doubled as the result of our greatly increased population, added health insurance coverage, and education in the importance of good care. The situation will continue to become increasingly more acute unless positive steps are taken now toward working out a solution. The fact is that many doctors and most hospitals in Texas are faced with an extremely serious problem, and the public is looking to them for a solution.

With this thought in mind and the welfare of the patient of primary concern, representatives from four professional societies met January 30, 1954, to form the Texas Joint Commission for the Improvement of the Care of the Patient. With the cooperative efforts of the member organizations, the commission has become one of the most active groups in medical circles and promises, if its ambitious undertakings prove successful, to be a far step toward achieving the maximum in patient care and service.

Composed of four representatives from the Texas Medical Association, four from the Texas Hospital Association, and two each from the Texas Graduate Nurses' Association and the Texas League for Nursing, the commission has projected plans in its six general and several special meetings which are designed to bring about one of the most closely cooperative efforts toward one goal that has yet to be attempted by the "health team" of the state. Texas Medical Association representatives, all of whom have been reappointed by President J. Layton Cochran for second terms, include Dr. Truman G. Blocker, Jr., Galveston, former chairman; Dr. A. C. Scott, Jr., Temple; Dr. Joseph F. McVeigh, Fort Worth; and Dr. G. E. Brereton, Dallas. Sister Mary Vincent, R. N., Fort Worth, a representative of the Texas League for Nursing, became chairman January 1.

Among the many areas in which there is work to be done in the improvement of patient care, the commission has launched a three year program in probably the most important of these—paramedical health careers. After several meetings with representatives of nine paramedical associations, a concentrated program has been set up aimed at the recruitment of more qualified personnel into the various fields. The groups concerned are composed of medical record librarians, occupational therapists, physical

therapists, hospital dieticians, nurse anesthetists, medical technologists, x-ray technicians, hospital pharmacists, and medical social workers. Requested surveys by representatives of these groups, completed last March, reflected the shortages of specialty groups in Texas hospitals, the reasons for such shortages, numbers of established and approved schools in Texas, numbers of students, and possible methods for improving the situation.

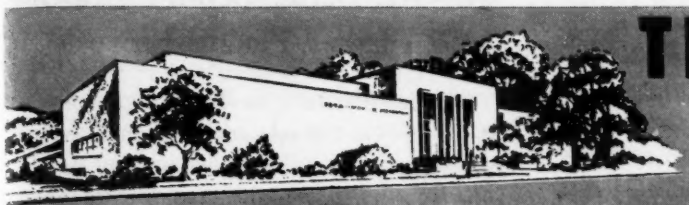
The commission set up three functioning committees to work out recommendations for procedure, the Paramedical Committee, Careers Guidebook Committee, and Health Careers Finance Committee. All committees have met on several occasions and their recommendations have been consolidated into the program now under operation.

The Paramedical Committee recommended and the commission approved the hiring of a full time executive secretary to coordinate and direct the three year health careers recruitment program from an Austin office, and several applications already have been received. Preparation of the careers guidebook has started and, at last report, is progressing satisfactorily. Plans call for the guidebook to be in distribution by March 1. According to recommendations of the Careers Guidebook Committee, it will be sent to vocational guidance counselors in all high schools and junior colleges, county medical societies' woman's auxiliaries, business and professional women's clubs, bureaus of Texas Graduate Nurses' Association, directors of schools of nursing, vocational nursing bureaus, and the membership of the Association of High School Superintendents.

In carrying out the paramedical health careers program, all possible sources of assistance in the promotion of the campaign will be utilized. Personnel participation and use of facilities of all member organizations of the commission will be requested, and an effort will be made to secure the full cooperation of as many other professional, civic, state, and industrial agencies as possible.

According to estimates made by the commission, the three year program will require approximately $20,000 annual expenditure to carry out an extensive state-wide recruitment program using all available mediums for dissemination of information concerning the opportunities in the health field. Additional schools also must be established in several of the professions as student load increases to a peak which will assure an adequate and continuous supply of qualified personnel.

Necessarily, the commission must look primarily to associations within the "health team" for the financing of such a program. The Texas Hospital Association has raised $10,000 and has pledged similar amounts for each of the next two years. The financial support of doctors is needed urgently, and the Board of Trustees of the Texas Medical Association has proposed a plan of financial aid for consideration by the commission. In addition to soliciting funds from doctors and hospitals, the commission will approach foundations interested in the health field for the additional financial assistance necessary to assure the success of the program.



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DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH IN TEXAS

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Making Insurance Work

Seven out of 10 patients who enter the doctor's office for consultation now own some form of hospitalization insurance. About 101 million people are covered with hospitalization; 86 million have surgical expense protection; and 47 million have medical care benefits. In most instances, this coverage has been bought in good faith and its utilization is expected in equally good faith. Such insurance represents the American way of doing business—the system of private enterprise. This system of protection should offer security in time of illness to the major segment of our population; it should grow and prosper and include an ever increasing number. You can be sure that health insurance is a growing and prospering business, for if it were not, the government would not be interested in interfering with its management.

The threat of government interference in the field of hospitalization should cause us, as physicians, to pause for a moment to evaluate the entire picture. Are we physicians as individuals doing all that we can to strengthen the insurance program to assure its continued strength and sound progress? Are the insurance companies themselves doing all that is possible to promote greater benefits and wider coverage?

First, let us look at the doctor's side of the question. Since catastrophic insurance coverage has been in effect, there has been an increasing higher-than-average charge (20 to 25 per cent more) per case than was true in the past. Fees such as $2,270 for six weeks' medical care in a terminal cancer case seems a bit unusual, as does $1,800 for removal of an eye; $1,000 for thyroidectomy; and $750 for radical

mastectomy — these charges from physicians whose previous insurance company records of charges were not in this range. Actually these isolated instances are no worse than repeatedly hospitalizing patients and keeping them in the hospital for several days longer than necessary purely because they have coverage. One instance is reported in which a county grievance committee was reluctant to accept responsibility in a case filed against a doctor by an insurance company for what, in the insurance company's opinion, represented excessive charges. Should we not hear and evaluate complaints from such firms as well as from individuals?

On the other hand, all of us as physicians have felt that at times an insurance company sold policies to individuals, telling of numerous benefits which were not included in the policy. This overselling creates ill will not only in the patient-doctor relationship, but against the insurance company as well.

Denial of claims on preexisting illnesses in numerous instances could be solved by more careful selling. The cancellation of policies after an illness also creates bad public relations.

Shorter forms and more uniform reporting of illnesses certainly would make the doctors happier also.

It seems that all of these differences could be resolved easily by a closer cooperation of insurance companies and doctors—making use of already existing liaison committees—sponsoring a satisfactory educational program for both insurance companies and doctors. This is an opportune time to bring this problem into the open for frank discussion and consideration so as to strengthen the weak points and build for a strong, solid, friendly relationship between doctor and insurance company that can prevent further damaging legislative action.

—ROBERT W. KIMBRO, M. D., Cleburne.

Toward Better School Health And Firmer Friendships

For the first time in Texas, representatives of the medical and educational professions have planned a conference to develop closer cooperation between the family physician, the health department, and the school in further improving the health of the school children of Texas.

The Conference on Physicians and Schools, which will be March 15 and 16 at the Texas Medical Association building in Austin, is the result of many weeks of planning by the Committee on School-Physician Relationships of the Association, the Texas Education Agency, and the State Department of Health, and it is hoped that the medical profession will be well represented. Each county medical society is invited to send a delegate, as are various organizations in the field of education. In addition, about 50 school superintendents will be present.

The need for constructive cooperation between doctors and teachers was emphasized last year in a survey by the Council on Medical Economics designed to ascertain the types and structures of school health programs throughout the state. Partly as a result of that survey, the Committee on School-Physician Relationships was appointed this year. This conference is the first big project of the committee, and its potentialities as a public relations medium are great. It will seek to lay the groundwork for a school health program which can be adapted in the various areas throughout the state school system.

Conferences of this type have been held at the national level, and several states have arranged similar meetings. They afford physicians an opportunity to show educators that organized medicine is willing to provide solid, dependable help when needed. Through interchange of ideas, doctors may become more cognizant of the problems of teachers, school administrators, public health authorities, and par-

ents and more genuinely concerned with their solution.

If the Texas conference is to succeed, it will require the attendance and enthusiastic support of physicians. Teachers, dentists, school administrators, and members of such groups as the parent-teacher association will be impressed only if they see a representative of their own local medical society in attendance and are assured that the doctors in their area are well informed and ready to cooperate in setting up a better school health program.

—JAY J. JOHNS, M. D., Taylor.

"Dr. Sam"

The Executive Council of the Texas Medical Association paused January 21 to recognize the death of a physician. This tribute was unusual, but the doctor was unusual.

Dr. Sam E. Thompson of Kerrville was a giant among the breed of giants who molded the state's medical organization in its early and adolescent days. Working up to the two highest positions the Association can offer—President and chairman of the Board of Trustees—Dr. Thompson voluntarily moved out of the limelight when his health dictated less vigorous activity, but he continued quietly to exert a powerful salutary influence. His consuming interest in the Texas Medical Association and its Library was never quenched; to the end he was eager to hear of them from those who came to his hillside home to pay their respects.

An authority in the treatment of tuberculosis, Dr. Thompson was beloved by countless patients and their families. His associates respected him as an organizer, a peacemaker, and one of the truest friends medicine ever had. Everyone who knew him was warmed by his kindly "what can I do for you?" attitude and the wise counsel and generosity with which he gave answer.

"Dr. Sam" will be missed.

Site for Annual Session

A suggested procedure for selecting a site for future annual sessions is among the items to be discussed at the forthcoming annual session of the Texas Medical Association, April 21-25 in Galveston. A recommendation calling for careful study of available facilities before a host city is decided upon has been considered favorably by the Board of Trustees, the Council on Scientific Work, and the Executive Council.

In view of the growing membership and increasing attendance at the annual session and the continuing integration of the program with specialty societies, the physical arrangements for the meeting are becoming more of a problem. Housing with regard to both meeting rooms and sleeping rooms is of prime importance in conducting a successful convention.

If approved, the proposal would require no change in the Constitution and By-Laws, only a change in procedure. Formal invitations would continue to be presented to the House of Delegates by cities wishing to serve as hosts for the annual session, but the House would not be asked to reach an immediate decision. The invitations would be referred to the Council on Scientific Work, which would send representatives with members of the Association's central office staff to review the facilities of the potential host cities. On the basis of this information, a formal recommendation would be presented jointly by the Council on Scientific Work and the Board of Trustees to the Executive Council at its next session in the fall for a definite decision.

The adoption of this recommended procedure not only would give the Association a choice of locations but also would put the doctors in a better bargaining position so as to assure the Association of the best possible facilities in a host city for each annual meeting. The Association stands to benefit by advance consideration of the proposed plan on the part of the county societies and their delegates.

ORIGINAL ARTICLES

Hirsutism

Differential Diagnosis And Treatment

JOSEPH W. GOLDZIEHER, M. D.

San Antonio, Texas

HIRSUTISM presents a problem in a culture such as ours, which regards the absence of body hair as a criterion of anthropologic progress and of female attractiveness. In most instances it is managed adequately by simple cosmetic means, but there remains a substantial number of people who seek medical advice because of pronounced or progressive hirsutism. Until recently, clinical medicine had little to offer except in rare instances in which hirsutism was merely the presenting symptom of a serious underlying disturbance. With the continuing progress in endocrine methodology, however, we are at present in a far better position as regards both our diagnostic and our therapeutic capacities.

DR. JOSEPH W. GOLDZIEHER, *senior staff member and chief of the Endocrinology Laboratory, Southwest Foundation for Research and Education, presented this paper for the Section on Internal Medicine at the Texas Medical Association Annual Session in Fort Worth, April 25, 1955.*

At the outset it is important to clarify the terminology applied to this problem. By *hirsutism* is meant a quantitative increase in body hair, without any specification as to its qualitative features (for example, distribution). If the distribution of body hair in women, whether it is increasing or not, begins to assume a male pattern, and particularly if it is accompanied by other somatic changes characteristic of maleness, then one may speak of *virilization* or *masculinization,* giving rise to the condition of *virilism.* This is no mere didactic classification, but serves as a useful, if highly tentative, generalization to separate cases which are likely to involve abnormalities of steroid metabolism from those which are not. For it has become clear that there are two major types of hirsutism: those which involve some intrinsic overactivity of the end-organ—the piliary system—whether genetic, local, or otherwise, and those which involve some external stimulus, usually hormonal, acting on normal hair. As a first approximation, diffuse generalized excess of body hair or localization in some nonmasculine pattern (such as a patch in the lumbar region) is more likely to reveal a nonendocrine background, whereas masculinization is much more likely to involve some disturbance of the steroid-producing endocrines, the gonads and the adrenal cortex.

DIAGNOSIS

The diagnosis of nonendocrine hirsutism at the present time is made largely by exclusion and, therefore, must be accepted with reservations as must all negative diagnoses. Aside from truly nonendocrine hypertrichosis, this classification most probably serves as a wastebasket for many still unrecognized and hence unsegregated conditions. However, a variety of positive facts may exist to strengthen the diagnosis of nonendocrine hirsutism. If, for example, there exists a strong racial or familial background of hairiness (which, it must be noted, may skip a generation); if the condition appears relatively early in life and shows no correlation with the endocrine revolution that occurs during adolescence; if there is no associated abnormality of menstrual function; if the distribution of hair is rather general; if it shows no sudden or progressive increase in quantity; and finally, if no abnormality of steroid metabolism can be detected by adequate investigation, then the diagnosis might be justified by our present standards.

When the role of endocrine stimuli is considered, the situation becomes far more complex. For the gonadal and adrenocortical hormones, even as single pure steroids, exert a spectrum of effects and, when present in mixtures as happens in the body, partake in addition of a bewildering assortment of synergisms and antagonisms. For example, testosterone, which is highly androgenic, also has effects on electrolyte metabolism; hydrocortisone, probably the major "corticoid" in the human being, has electrolyte effects and is also androgenic; progesterone is about one-tenth as

androgenic as testosterone itself; and so on. It therefore depends greatly on the chemical composition of the endocrine stimulus whether the chief result is masculinization or whether there is also, for example, obesity and hypertension from electrolyte imbalance as in the adrenogenital syndrome or disturbance of carbohydrate metabolism as in Cushing's syndrome or in the "diabetes of bearded women" of Achard and Thiers.

These differences in the chemical nature of the androgenic stimulus also lead to complications with the laboratory tests for the steroids excreted in the urine. If testosterone, a 17-ketosteroid (fig. 1), is

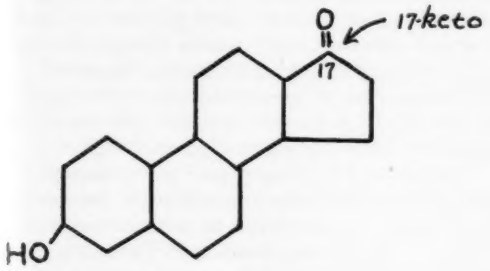

Fig. 1. Molecular structure of testosterone. Note the 17-keto group characteristic of such compounds.

the major culprit, its presence will be detected by the usual methods for the determination of urinary 17-ketosteroids. On the other hand, if one of the corticoids such as hydrocortisone or perhaps a substance such as 17-hydroxy progesterone (which is androgenic in some species) is responsible, then this test will be of little value, for it does not reflect satisfactorily the excretory metabolites of these hormones, which are 20-ketosteroids, not 17-ketosteroids (fig. 2).

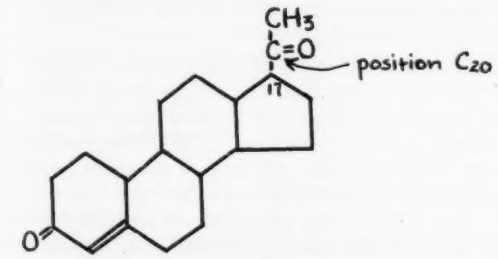

Fig. 2. Molecular structure of progesterone. Note the extra 2-carbon chain and the ketone group now in the 20-position.

This is undoubtedly the reason for apparently normal "ketosteroid" excretion values which have been reported in some cases of Cushing's syndrome and from time to time in other virilizing conditions. Thus it has become clear that a simple urinary 17-ketosteroid determination is not adequate for a study of this problem, and intensive work is under way in a number of laboratories as to the nature of the urinary steroid pattern in various types of hirsutism and virilism.

Hirsutism may be accompanied by signs of masculinization in various degrees. Usually, changes in hair distribution—increase of lip, chin, and axillary hair, alteration of the pubic escutcheon with extension up the linea alba toward the umbilicus, appearance of periareolar breast hair, recession of the head hairline, perhaps with some general thinning—tend to appear relatively early. Somewhat later, there may appear atrophy of the breasts, change in the body

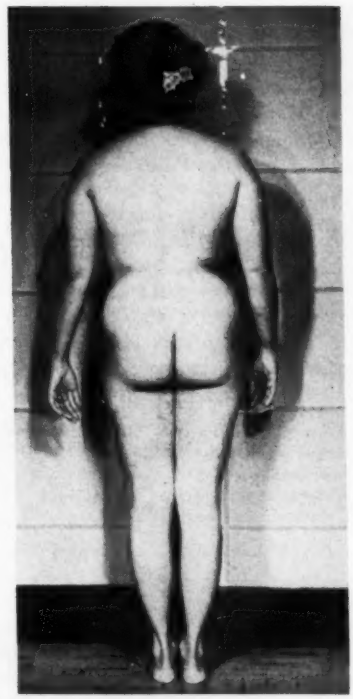

Fig. 3. Body build (masculine habitus) in benign adrenal hyperplasia.

contour toward a less feminine appearance (broadening of the waist, shrinkage of peripelvic, buttock and trochanteric fat, increase in shoulder breadth), and possibly some weight gain. There may follow hypertrophy of the clitoris (occasionally an early sign), menstrual disturbances culminating in amenorrhea, and deepening of the voice. As mentioned before, in the event that other steroid effects become significant, there also may appear hypertension, changes in carbohydrate metabolism, decreased resistance to infection and stress, actual tissue atrophy (muscle

wasting and the purple striae of Cushing's syndrome), and even psychotic manifestations.

Even though it seems fairly obvious, the role of tissue responsiveness in this symptomatology deserves emphasis. In some cases, with a hormone-sensitive hair system, there may be pronounced hirsutism of a masculine pattern, with no enlargement of the clitoris or deepening of the voice[4]; in others, clitoral hypertrophy and hypersensitivity may be the major complaint. Thus the pattern of hirsutism, masculine hair distribution, and other signs of masculinization may present considerable variation and needs to be evaluated as a whole.

LESIONS CAUSING HIRSUTISM

Androgenic steroid hormones are manufactured in one of two places: the adrenal glands or the ovaries. The lesions which may produce such a hormonal excess may be classified as follows:

Adrenal gland:

1. Adenoma.
2. Carcinoma.
3. Hyperplasia.
   a. Clinically malignant course (Cushing's syndrome).
   b. Clinically benign course (suppressible).

Ovary:

1. Tumors.
   a. Arrhenoblastoma group.
   b. Adrenal rest cell tumors.
   c. Hilus cell (Leydig cell) tumors, hyperplasias.
2. Hyperluteinization.
   a. Luteomas.
   b. Diffuse luteinization.
   c. Stein-Leventhal syndrome.

ADRENAL DISORDERS

Adrenal tumors are a rare cause of hirsutism. Because of the surgical accessibility of adenomas and the great malignancy of carcinomas, however, this possibility always must be kept in mind. Commonly, the patient with a secreting adenoma presents the picture of the adrenogenital syndrome—namely, hirsutism accompanied by masculinization, obesity, and usually hypertension. The course is benign, and the symptoms may be present for many years in an adult. In children, or when the symptoms develop rapidly in an adult, it is far more likely that the tumor is malignant. Ketosteroid excretion may be high, and with carcinomas may range upwards of 100 mg. per day. The diagnosis is substantiated by the cortisone suppression test (to be discussed later) and with presacral air insufflation, usually combined with retrograde pyelography. During surgery, particularly for adenoma, it is axiomatic that both sides be inspected, for congenital absence of one adrenal gland is a possible, though no longer fatal, complication. With adenomas, the prognosis is usually excellent, both as to the hirsutism and the other symptoms. Malignancies of the adrenal cortex are prone to rapid recurrence and extensive metastasis.

Hyperplasia of the adrenal cortex, particularly its milder forms, is being recognized far more frequently than heretofore. Cushing's syndrome, whether due to a tumor or to hyperplasia of the adrenal cortex, is a well recognized entity in which hirsutism is but a minor aspect of a serious condition. The average life expectancy of a patient with untreated Cushing's syndrome is about seven years from the time of diagnosis, thus putting it on a level with some of the more malignant cancers. Currently, pituitary irradiation or (more frequently) total or subtotal adrenalectomy offers an improved prognosis. However, it is the benign type of hyperplasia, usually unrecognized as such, which is far more common and hence more important from the practical point of view.

A substantial fraction of patients—a quarter or a third, perhaps—who have no complaint beyond that of hirsutism, can be shown to have adrenal cortical hyperplasia as the basic disturbance. This group shows moderately elevated 17-ketosteroid excretion, of the order of 15 to 40 mg. per day; the rise is due in most instances to an increased excretion of dehydroiso-androsterone, a potent androgen. In some cases, however, all the readily identified 17-ketosteroids are excreted at elevated levels.[3] There have been no studies to date of the excretion of other types of steroids, and this is an important problem for future research. Clinically, these patients are likely to maintain menstrual function far better than the group which has an ovarian disorder as the cause of the hirsutism: endometrial biopsies, basal temperatures, or urinary pregnandiol determinations usually will show that the menses are truly ovulatory; in fact, fairly cyclic menstruation is the rule rather than the exception in this group.

Recently there has been developed an important diagnostic test for such adrenal hyperplasia, based on the reciprocal relationship between pituitary ACTH and adrenal cortical cortisone. It is known that pituitary ACTH stimulates the adrenal cortex to produce its hormones, chiefly hydrocortisone, and this steroid in turn inhibits the production of ACTH by the pituitary, thus establishing the usual type of endocrine dynamic equilibrium. In the syndrome of benign adrenal hyperplasia it has been postulated that an abnormal hormone is manufactured by the adrenal cortex under the stimulus of ACTH and that this hormone is unable to inhibit the pituitary gland the way that cortisone does. The administration of exogenous cortisone is still capable of inhibiting pituitary ACTH production because the basic defect i

not in the pituitary but in the steroid-synthesizing mechanism of the adrenal. If the increased adrenal cortical activity of hirsute patients were due to an excessive ACTH production based on the above mechanism, then the administration of cortisone or hydrocortisone should inhibit the pituitary, interrupt the excess stimulation, and permit the urinary 17-ketosteroids to drop. (Cortisone is not excreted as 17-ketosteroid.) In the group of patients under discussion, this does indeed turn out to be the case.

The actual diagnostic test, known as the cortisone suppression test, is performed by obtaining a pre-treatment 24 hour urinary 17-ketosteroid excretion value, giving 75 mg. of cortisone or 30 mg. of hydrocortisone in divided doses daily by mouth for two weeks, and redetermining the 17-ketosteroid excretion during the last 24 hours of therapy. If the increased 17-ketosteroid excretion were due to adrenal hyperplasia, the level should be reduced to normal (6 to 12 mg. per day) or nearly normal levels within this time interval.

Obviously, a positive test also indicates the choice of therapy: cortisone or hydrocortisone is continued for a prolonged period—usually a number of months. In a surprising number of patients, the urinary 17-ketosteroid excretion continued to remain low for periods of six months or even longer after discontinuation of the steroid therapy.[3] Regression of the excess hair is somewhat less satisfactory: there are cases in which prompt depilation occurs, but there are also others in which little or no effect on the body hair has been observed within half a year of treatment.

Unless the cortisone suppression test is carried out, these cases may at times be mistaken for the Stein-Leventhal syndrome (discussed later), even to the finding of the characteristic sugar-icing ovaries. It must be emphasized that this ovarian lesion can occur secondary to a number of adrenal disorders (adrenal carcinoma, Cushing's syndrome, adrenal hyperplasia), and the usual treatment for Stein-Leventhal syndrome (wedge resection) is of little value in these instances.

OVARIAN DISORDERS

Ovarian tumors are another rare cause of hirsutism and masculinization, and are suspected far more commonly than their frequency actually warrants. On the other hand, this possibility never should be ignored, for a tumor too small to be palpable may be capable of producing large amounts of androgens. With an increasing awareness by physicians of the possibility of such tumors, furthermore, cases of masculinization due to ovarian tumors may be seen when the tumors are younger, and therefore smaller, than in years past. The clinical history of such lesions is highly variable, but ordinarily it is characterized by a slow and progressive development of hirsutism and masculinization. Changes in carbohydrate metabolism (diabetes) are not found, and electrolyte disturbances manifesting themselves clinically as hypertension and so forth must be extremely rare, if indeed they occur at all. Urinary hormone studies have been performed in surprisingly few cases; in general, the urinary 17-ketosteroids show moderate elevation, up to about 90 to 100 mg. per day.[5, 6, 9] Occasional cases have been reported in which the 17-ketosteroid excretion was within normal limits but dropped after removal of the tumor.[9] Hence a value within the normal range does not exclude the diagnosis. That there are other, as yet unknown, steroids involved is shown by reports of elevated "pregnandiol" values in some cases.[1] Finally, administration of cortisone, as expected, has failed to depress urinary 17-ketosteroid excretion in those few cases of arrhenoblastoma in which it has been tested. No such studies are available as yet with so-called adrenal rest cell tumors or hilus cell tumors,[10] but there is reason to believe that they would behave in the same fashion. The removal of these lesions is usually simple, and the therapeutic results in most cases are highly gratifying: refeminization and loss of excess body hair may occur with great rapidity.[9] Again, however, there are some patients whose overstimulated piliary system never quite returns to normal, and these persons may have to resort to electrolysis for final epilation.

Occasionally, histologic examination will reveal a luteoma, or when diffusely enlarged ovaries have been found at surgery, examination will reveal hyperluteinization of the ovarian stroma. Particularly in the latter instance, there is reason to believe that excessive production of pituitary gonadotropins may play a part, but few studies have been carried out to date, and no proof of the effectiveness of antigonadotropic measures is available.

Last and most common of the ovarian disorders which produce hirsutism is the syndrome of masculinization, amenorrhea (nearly always), and obesity (usually), associated with bilaterally enlarged ovaries which show on examination a diffuse, dense cortical fibrosis, multiple small cysts beneath and within this layer, and hyperluteinization of the ovarian stroma. The names of Stein and Leventhal are associated with this condition, and since their original publications years ago, the disorder has been observed and identified with increasing frequency.[8] As mentioned in an earlier section, the peculiar appearance of the ovaries, with their sugar-icing fibrosis, is also found in other masculinizing conditions where a disorder of adrenal cortical function exists.[2] The relation between this peculiar pathologic condition and the clinical symptoms is as yet unclear, for a wedge resection of the abnormal ovaries of the Stein-Leventhal syndrome results in normalization of menstrual function in 60 to

85 per cent of patients, whereas the same procedure carried out in patients with adrenal disease accompanied by ovarian lesions has no effect. This seems to indicate that there is an intrinsic ovarian etiology to the syndrome, but little else is known at the present time.

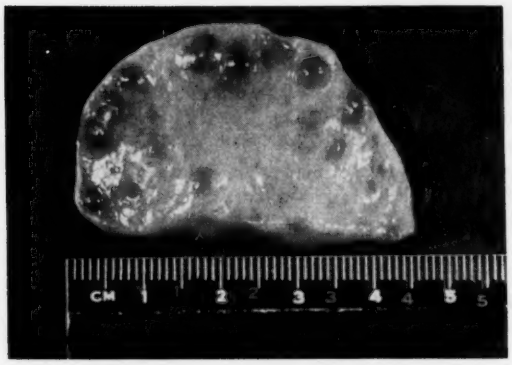

Fig. 4. Typical Stein-Leventhal ovary. (Courtesy of Dr. Albert Segaloff, New Orleans.)

Patients presenting this symptom complex nearly always have amenorrhea or severe menstrual disturbances, in contrast to the adrenal hyperplasia type of hirsutism in which ovarian function is generally far better preserved. The urinary 17-ketosteroids are usually within the normal range or only slightly elevated, up to 20 to 30 mg. per day. The steroid excretion pattern, which has been studied in a few cases, has shown a slight elevation of all the components, rather than any specific abnormality, in most instances. Unfortunately, no studies of other types of ketosteroid excretion products (such as 20-ketosteroids) have been published. As might be expected, a therapeutic trial of cortisone or hydrocortisone (the suppression test) shows no effect either clinically or on the urinary 17-ketosteroid excretion level.[3] As mentioned before, the prognosis in these cases following bilateral wedge resection is very favorable, for about 85 per cent show restoration of some menstrual function, and well over 60 per cent develop fully ovulatory cycles.

CONCLUSION

Hirsutism is a condition which requires more than casual attention by the clinician. Although there are as yet many instances in which little can be offered therapeutically, the specific tests which have been developed, together with clinical acumen, often help to indicate the origin of the condition, and in some instances the specific therapy. Moreover, as hirsutism at times may be the herald of a serious or even fatal malady, it deserves the best diagnostic efforts in every case.

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Nonpatency Of the Fallopian Tubes As a Cause Of Sterility

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TUBAL obstruction generally is accepted as being the most common single cause of sterility. It has been variously estimated to be responsible for from 30 to 50 per cent of reproductive failures.

The failure to recognize and appraise properly the importance of partial occlusion of the fallopian tubes in any investigation of a barren couple may lead to much disappointment. This was clearly brought out by Rubin,[8] who extensively investigated the degree

of tubal patency as it was related to the passage of the ovum through the lumen of the tube. The fallopian tubes may be sufficiently patent to permit the passage of carbon dioxide under high pressure but insufficiently patent to permit the passage of the ovum.

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Bilateral tubal occlusion, partial or complete, is usually the residuum of an antecedent gonococcic infection or a postabortal pelvic infection. However, the gonorrheal infection is much more apt to result in occlusion of the tubes than the postabortal or puerperal infection. Less often the occlusion is due to adenomyosis of the fallopian tubes. Occasionally tuberculous salpingitis is the cause. The history also may indicate that the original tubal infection with subsequent closure follows a ruptured appendix. Loss of tubal peristalsis with a predisposition to ectopic pregnancy is present in many instances of genital hypoplasia.

DIAGNOSIS

The diagnosis of tubal patency or nonpatency should be established by the use of transuterine tubal insufflation with carbon dioxide or by hysterosalpingography. Various authors have demonstrated through the use of the tubal insufflation with kymographic tracings that four major groups of tubal patterns can be diagnosed: normal tubal patency, nonpatency, tubal spasm, and tubal stenosis. Some predict the location and type of occlusion on the basis of these kymographic tracings. Many physicians are unable to do this, and as a rule once the existence of nonpatency has been established, it is necessary to rely upon the hysterosalpingogram to demonstrate the location and type of occlusion.

In any discussion of the subject of tubal insufflation, the more common contraindications to its use should be reviewed. These are:

1. Evidence of active pelvic inflammatory disease or suspected tubal inflammation as indicated by adnexal tenderness.
2. The presence of any active infection in the vagina, cervix, or uterus.
3. Evidence of any pelvic lesions such as tumors which may render the test futile or unsafe.
4. Any possibility of pregnancy.
5. Uterine bleeding from any cause.
6. An interval of less than three weeks after previous intrauterine manipulation.
7. Serious cardiac and respiratory diseases, which in themselves render conception undesirable.
8. History of a mild reaction, such as slight rise in temperature and pain in the lower part of abdomen for a couple of weeks, following a previous Rubin test or curettage. This reaction in women who had supposedly normal pelvic organs at the time of the procedure is thought by Mazer and Israel[4] to be highly suggestive of tuberculous salpingitis.

In the use of this transuterine insufflation of the fallopian tubes the following observations have been made: (1) The insufflation should be done with carbon dioxide and never with air or oxygen. (2) Manometric and volumetric control is essential. (3) Kymographic recordings are preferable since, as Rubin[7] points out, "By adding the kymograph to uterotubal insufflation, several valuable aids were gained. First, a permanent record of the pressure changes during the test was obtained. Second, the functional status of the tubes could be established in a way not achieved through lipiodol injection. Third, the test could be most conveniently repeated for therapeutic purposes, and improvement in the functional condition of the fallopian tubes could be established and demonstrated." (4) No diagnosis obtained by one test should be considered final but should be repeated several times, for it has been shown repeatedly that a second or third insufflation will reveal tubal patency. (5) When nonpatency is thought to be established by several insufflations, hysterosalpingography using a radiopaque medium should be carried out.

This hysterosalpingography, as I have just pointed out, is usually employed following the uterotubal insufflation. However, in certain cases with a history of pelvic inflammatory disease, pelvic surgery, or physical evidence of pelvic adhesions with the increased likelihood of tubal obstruction, uterosalpingography may be resorted to without previous tubal insufflation. The test provides a means of more accurately determining the site of tubal occlusion preparatory to possible tuboplasty, a chance of overcoming tubal impatency by means of hydrostatic pressure, and a means of demonstrating intrauterine lesions.

The contraindications to hysterosalpingography are essentially the same as those for uterotubal insufflation. I have found it extremely desirable to use the fluoroscope in conjunction with the salpingography, for as a rule the progress of the contrast medium can be followed closely.

TREATMENT

Once the diagnosis of tubal nonpatency is established by means of the uterotubal insufflation and hysterosalpingography, all possible conservative measures should be utilized to reestablish patency. Wil-

liams[11] and many others believe that the use of estrogens helps to improve tone and contractility of the fallopian tubes, especially in cases of tubal occlusion associated with a hypoplastic uterus. Pelvic diathermy also has been shown to be beneficial. Repeated carbon dioxide insufflations on many occasions have been followed by tubal patency and pregnancy a few months later. This also holds true of hysterosalpingography. Many physicians have seen pregnancies within one or two months of a hysterosalpingogram. Rubin[8] has advocated the use of tubal insufflations at much higher pressures in an effort to reestablish tubal patency. With this method Rubin[8] has reported 46.4 per cent pregnancies in 274 women whose fallopian tubes exhibited various degrees of impaired patency. Rutherford[9] has utilized advance pressure on his hysterosalpingographies and reported 71 per cent relief of tubal occlusion and 63 per cent of pregnancies with 13 per cent spontaneous abortions. I have not used this method of therapy in the Medical Branch clinic and am a bit afraid to start it.

Decker[2] recently has devised a technique for concomitant use of the insufflation at highly advanced pressures combined with the mechanical manipulation of the tubes under visual control by means of the culdoscope. He has reported 5 cases of persistent patency, of which 1 patient became pregnant following this method. How quickly or widespread this method will be employed is in doubt, but the value of the culdoscope as a diagnostic adjunct is well established. It appears that this instrument would be of value in selecting cases for tubal surgery. The role of surgery for treatment of tubal occlusion has been minor for years, especially since Greenhill[3] in 1937 reported only 54 pregnancies following 818 plastic operations. Only 36 live babies were delivered or 4.4 per cent incidence of successful results. However, recently many authors have reported good results utilizing polyethylene tubing to maintain tubal patency following plastic procedures. Also, the many refinements in operative techniques, the use of antibiotics and chemotherapeutic agents, and the increased availability of whole blood have stimulated a more active interest in the field of tubal surgery for sterility. In spite of these many improvements the percentage of pregnancies following successful tuboplasties still remains low. Te Linde[10] has stated that the changes in the endosalpinx due to the salpingitis are not favorable to the conduction of the ovum down the oviducts.

In view of these pitfalls to tubal surgery, I have followed the example of others and have set up the following requisites which must be met before the patient is subjected to laparotomy:

1. The couple must want a baby badly.
2. The husband must have a high fertility index.
3. The wife must be well within the limits of the childbearing age.
4. The wife must have no systemic disease to contraindicate surgery or pregnancy.
5. The wife must have a secretory endometrium proved by biopsy and if possible a normal basal body temperature and no endocrine dysfunction.
6. The wife must be free of recent pelvic inflammation.
7. A low sedimentation rate which remains low following pelvic examination must be evident.
8. The wife should be a good surgical and mental risk.
9. The couple should be clearly told the possibilities involved in the procedure and the likelihood of failure. Honesty is essential if one is not to be plagued by one's conscience and by a group of greatly disheartened, discouraged, and hurt patients. Failure in terms of tubal closure, failure to conceive, abortion, and possible ectopic pregnancy should be clearly emphasized.

Many procedures have been described for the surgical relief of tubal occlusion, but most of them can be grouped into four types: (1) release of adhesions about the tubes or fimbriated ends (salpingolysis), (2) resection of the proximal portion of the tube and implantation of the distal portion into the uterine cornu, (3) making of a new opening in the occluded tubal end (salpingostomy), and (4) implantation of an ovary or part of an ovary attached to its pedicle into the uterus. The type of procedure selected necessarily will vary with the individual case, based not only upon the area of tubal occlusion but also upon the preexisting pelvic lesions associated with the occlusion.

In general we deal with the sequelae of postabortal, postpartum, and gonorrheal infections; endometriosis; and postoperative sequelae, particularly after ovarian or uterine surgery. Salpingolysis is usually employed in cases of tubal occlusion due to peritubal adhesions. These most often follow postabortal infections and appendectomy or other pelvic surgery. One is often surprised as to the patency of the tubes following the simple release of peritubal adhesions. The tube may function normally because the endosalpinx is relatively disease free and intact. When the clinical evidence points to a previous Neisserian infection, one is seldom justified in performing a laparotomy for the simple release of adhesions, for this type of infection is primarily an endosalpingitis and tubal occlusion is most likely to remain present in spite of the salpingolysis. After performing this type of procedure, I believe it is best to maintain patency by repeated carbon dioxide insufflations.

Attempts to restore fertility following salpingectomy by means of implanting the ovary into the uterine cavity almost have been abandoned. If it is done today, the majority of operators use an Estes technique. This method includes the excision of the convex surface of the ovary and implantation of the remainder into the uterine cornu in an opening made in the myometrium, communicating with the cavity.

Salpingostomy is necessary where the tubes are distended following occlusion, frequently fimbrial, and

usually associated with gonococcal disease. Because the endosalpinx has been previously damaged and tubal physiology is impaired, the results from this type of plastic procedure have been poor even though patency is established.

The type of salpingostomy employed will vary with findings and also with various operators. Terminal circumcision of the tube with a roll back of the mucosa to form a cuff which is anchored to the subadjacent tube has been most popular, but lateral and linear salpingostomies have been used by some. End-to-end anastomoses have been the most unsuccessful. However, recently Mulligan, Rock, and Easterday[5] have reported on the use of polyethylene tubing and hoods in tubal implantations and fimbrioplasties. They not only used a polyethylene tube as an obturator but used a small polyethylene hood to cover the fimbriated end of the tube. This was removed at a second laparotomy two or three months later. This same obturator tubing was used on their tubal implantations. Of 63 patients with implantations they reported 24 cases of patency and 6 pregnancies. Of 30 patients with fimbrioplasty, 10 had open tubes and 7 became pregnant. Castallo and Wainer[1] found in 1953 that they could utilize the rapid healing power of the fallopian tubes by performing end-to-end anastomoses with the use of polyethylene tubing as an obturator in cases of mid-tubal occlusion. They made no attempt to suture the ends together. Their technique included the suturing of the long polyethylene tubing to the anterior rectus sheath. This was removed under local anesthesia eight weeks later. This length of time is considered by most authors to be too long. I prefer to remove the tubing at the end of three weeks.

In view of the fact that cornual and isthmic tubal occlusion is common, tubal implantation is done frequently. In general there are three types of techniques used as follows: (1) excision of the cornual area containing the tubal ostium and reimplantation of the proximal patent end of the tube following resection into an opening occupying the original position of the tube; (2) reimplantation of the tube below the site of the tubal ostium by creation of a new aperture in the lateral wall of the uterus, inferior to the old and either excising the tubal tag or suturing the old tubal site; and (3) reimplantation of the healthy tube superior to the original tubal area by creating a new opening in the fundus of the uterus.

Our technique has been to create a new opening just posterior to the old tubal site rather than at the sites mentioned. The obstructed proximal portion of the tube is excised and the remaining distal end is tested for patency by retrograde insufflation with saline solution. An opening is made in the uterus by means of a cork borer. The uterine end of the shortened tube is split longitudinally for a length of 1 cm., making a fish mouth opening. By means of mattress sutures of 000 chromic catgut each half of the split end is sutured into the uterine cavity. Following this a polyethylene tubing is passed through the tube into the uterine cavity and out into the vagina. Following closure of the abdominal wound, the polyethylene tubing is sutured to the cervix. This tubing may be inserted through the tube and uterus prior to suturing the fallopian tube into place. We have performed this procedure at the clinic on 2 patients in the past year and have achieved tubal patency in both of them with no pregnancies as yet. Our practice has been to remove the polyethylene tubing in three weeks and perform hysterosalpingography in one month.

Regardless of the technique employed certain principles should be followed:

1. Careful hemostasis.
2. Adequate implantation so that the implanted tube ends do not slough.
3. Preservation of tubal blood supply.
4. Demonstration of patency of the portion of the tube to be implanted.
5. Careful handling of the structures.
6. Use of fine suture material, 000 or 0000 catgut.
7. Adequate postoperative follow-up.

We have found also the use of preoperative and postoperative antibiotics to be of great value.

With the improvements in techniques, antibiotics, and increased interest in the field of tubal surgery, it is reasonable to expect improved results in the future from the various types of tubal surgery for the relief of sterility.

SUMMARY

The types and causes of tubal occlusion are presented. The methods utilized today in the diagnosis are discussed along with the indications and contraindications for the use of tubal insufflation and hysterosalpingography. A review of the conservative measures as well as the various types of surgical procedures used to correct tubal occlusion is given.

A slightly different technique for tubal implantation is described. This technique differs from others in that the site of implantation is located posterior to the uterine cornu. Two cases utilizing this type of tubal implantation with subsequent tubal patency are presented.

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ABSTRACT OF DISCUSSION

DR. STANLEY F. ROGERS, Bellaire: Dr. Jinkins' summary of current thought on the tubal factor in sterility is a valuable contribution because it brings a modern and realistic approach to the problem of therapy. His contribution would have been enhanced by a large series of cases, though perhaps it is to his credit that only 2 cases were presented in which surgery was performed. There have been additional contributions to this field of tubal occlusion, each with a different approach.

1. The use of cortisone along with antibiotic therapy in the patient with endurated persistent tubal infection has been advocated by Collins,* and recently by Kurzrok.†

2. The relief of tubal spasm by neurectomy or by the method of Doyle,‡ who resects a portion of each uterosacral ligament through a colpotomy incision, thereby denervating fibers to the uterus and tubes, has been suggested.

3. The use of other tissues is suggested to replace diseased tube, for example, vein walls or small intestines. These have been tried only in animals but later may prove helpful.

Our own experience with tuboplasty at the Jefferson Davis Hospital has been depressing. There has been a total of 12 patients operated upon, and of them only 1 patient actually had the operation performed. The others all had such extensive pelvic inflammatory disease that they required pelvic clean-out. This experience confirms my own feelings, which are in agreement with other men in Houston, and these are as follows:

1. When there is definite evidence of tubal occlusion of infectious etiology, the outlook is dim, and the patient may end up with a pelvic clean-out. This is certainly more prominent in a clinic population.

2. Endometriosis seems to play an even greater role in sterility; the tubal occlusion here is by kinking or by adhesions, with adherence to an area of ovarian endometriosis. In practice I see at least 10 cases of endometriosis for every 1 of infection. The uterosalpingogram can be misleading in these instances, that is, a tubal occlusion which seals the tube at the fimbriated end, accompanied by the injection of radiopaque material under high pressure may give a definite appearance of hydrosalpinx. I have had 2 such cases in which the roentgen-ray diagnoses of hydrosalpinx were made and in which, because of a lack of history of infection, surgery disproved the previous diagnoses. Both these patients had kinking or tubal occlusion due to endometriosis, and both became pregnant within three months following surgery.

In summary, one should be impressed more by the disease processes than by multiple surgical techniques. The age of antibiotics has changed the etiologic incidence of tubal occlusion with the result that fewer patients seen in private practice have tubal occlusion due to infection. Because of this and the use of polyethylene tubing to maintain patency, the prognosis for these patients has improved.

The factor of careful case selection is a large one, too, since if only the mildest cases with fimbriated adhesions or endometriosis are included, a 30 per cent pregnancy rate will result. This, plus the realization that we have a responsibility to the patients with more severe disease, makes it difficult to evaluate the percentage of cures in different series.

I am glad that Dr. Jinkins mentioned endometrial biopsy, since I think that endometrial biopsy is a necessity in a complete sterility work-up, more to show the quality of the secretory effect than to show simply that it was a secretory endometrium. Many general pathologists are lacking in this ability to describe the quality of such endometrium.

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Inadequate Weight Gain In Pregnancy

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IT HAS been our clinical impression for some time that patients who fail to gain weight during pregnancy are beset with more difficulties and problems than their more normal sisters. It is the purpose of this paper to demonstrate these difficulties, and particularly to attempt to relate premature separation of the placenta to this evidence of poor nutrition. At the beginning it would be well to state that this presentation is in the nature of a clinical observation rather than a statement of an established fact.

REVIEW OF LITERATURE

In 1944 and 1946, Burke and associates presented several papers indicating that proper nutrition in pregnancy reduced the incidence of stillbirths, neonatal deaths, prematurity, and congenital defects, although most later investigators failed to find any relationship between congenital defects and nutrition. Tyson, in 1946, studied 2,960 premature births out of 33,668 deliveries and concluded that adequate nutrition resulted in less prematurity. Reporting on a controlled study wherein the test group was given vitamin and mineral supplements, a British commission, in 1946, concluded that there was less toxemia, prematurity, and stillbirth if diets were so supplemented. In 1947, Eastman stated that the incidence of prematurity in poorly nourished patients was 25 per cent as compared to the 8 per cent in well nourished patients. Tompkins, in 1948, showed that an analogous group of pregnant women on supplemented diets had less toxemia, fetal mortality, and prematurity than an untreated control group. He also indicated that part of the problem was due to faulty absorption from the intestinal tract, as parenteral administration of vitamin B relieved their symptoms.

DR. JAMES T. DOWNS, III, *presented this paper before the Section on Obstetrics and Gynecology, Texas Medical Association, Annual Session, Fort Worth, April 25, 1955.*

In a paper in January, 1955, entitled "The Underweight Patient as an Increased Obstetric Hazard," Tompkins and others suggested that the initial weight of the patient was the determining factor in nutritional status and that underweight patients produced smaller babies, had more premature births, and had more toxemia than patients with normal initial weights.

MATERIAL

In this study, 1,153 pregnancies delivered in 1953 and 1954 were reviewed. These were private patients in the middle income group and most were on adequate diets. Weight gain was restricted to normal weight plus 20 pounds, and those who were overweight were placed on restricted diets, none of which was below 1,000 calories per day. All were given vitamin and mineral supplements in the last 20 weeks of pregnancy, and those with a poor nutritional status as evidenced by weight or hemoglobin values were given supplements as soon as possible in the first trimester of pregnancy.

Weight gain was measured from the initial visit to the last visit preceding delivery. A gain of 10 pounds or less was used to select the group studied, as this is about one-half of the average normal gain of 21 pounds. A total of 67 patients was found. The 1,153 cases were reviewed and the number of premature separations, toxemias, premature deliveries, and fetal deaths was determined (table 1). Prematurity was determined by weight only, using 5 pounds, 8 ounces as the single criterion. Toxemia was judged present when the blood pressure was 140/90 or more in a normotensive person or rising with albuminuria and/or edema. Some history of antepartum blood loss and uterine rigidity or tenderness in conjunction with an evident area of old blood clot on the maternal surface of the placenta placed the patient in the category of premature separation of the placenta.

TABLE 1.—*Material Studied.*

Deliveries	Patients Gaining <10 lb.	Premature Separations	Toxemias	Premature Deliveries	Fetal Deaths
1,153	67	23	15	58	30
100%	5.8%	2%	1.3%	5%	2.6%

FINDINGS

The 67 patients were then divided into three groups. Group A consisted of those who were overweight initially; Group B, of patients whose weights were average or below; and Group C, of patients whose initial visit was after 24 weeks (table 2).

It is noteworthy that those patients who were overweight at the beginning of their pregnancies (Group A) had no premature deliveries or premature separations, 2 cases of toxemia (both were patients who had toxemia in the preceding pregnancy), and 1 fetal death, the result of severe hemorrhage from a central placenta previa.

In the group of patients who were normal in weight or underweight initially (Group B) the majority of the problems of the entire series is concentrated. In these 28 patients (2.4 per cent of the 1,153 cases), 5 of the total of 23 premature separations and 6 of the 58 premature deliveries are found, as well as 4 of the 30 fetal deaths. As indicated by table 2, the birth weight of the babies of this group is distinctly below the average for the other two categories. Even excluding the 5 babies that were born before 37 weeks, the average weight is still only

6.5 pounds, distinctly below the 7.4 pound average for the entire group of 1,153. These findings are calculated to be statistically significant to the level of 5 to 8 per cent, sufficient to indicate that pure chance is improbable.

TABLE 2.—*Distribution of Complications According to Initial Weight Among Patients Gaining Less Than 10 Pounds During Pregnancy.*

Group	No.	Premature Separations	Toxemias	Premature Deliveries	Fetal Deaths	Av. Wt. of Infants
A (overweight initially)	26	0	2	0	1	7.3
B (normal weight or less initially)	28	5	1	6	4	5.9
C (first visit after 24 wk.)	13	0	1	0	0	7.9
Totals	67	5	4	6	5	7.4 (Av. of 1,153)

Group C is composed of 13 patients who began their pregnancy care after 24 weeks of gestation and are included only for comparison purposes, since they are, on analysis, a normal group of patients in regard to initial weight and total weight gain.

There is some indication that toxemia is more prevalent in Group C, but the numbers involved are too small to be significant. However, the total of the entire group shows one-fourth of the toxemia patients, which should have some significance, if only to indicate that excessive weight gain is not required as a precursor to toxemia.

Table 3 presents the 23 premature separations encountered in the 1,153 deliveries, an incidence of 1 in 50. The small size of the babies (average weight 5.9 pounds) is readily noted. The largest of the 16 term babies is only 7 pounds, 15 ounces, and only 3 weighed more than 7 pounds. The preponderance of underweight patients also is easily recognized. If a gain of 15 pounds had been chosen as the criterion of this paper, 11 cases, or almost half of the premature separations, would have been in this category. The seriousness of this complication is indicated by the high fetal death rate and large number of premature babies.

DISCUSSION

The present day practice of obstetrics has lowered maternal mortality to an almost irreducible minimum, but little has been done in this respect with fetal mortality except in nursery care of premature infants and treatment of hemolytic disease. This paper is directed toward a little understood and rather vague field of increased fetal risk encountered in pregnancies with evidence of poor nutrition. There is little question about a higher fetal mortality in prematurity, toxemia, placenta previa, and premature separation of the placenta, and, as the tables indicate, the patient who fails to gain weight has a definite increase in the probability of premature separation, prematurity, smaller babies, and fetal deaths. As is shown in the overweight group, the simple failure to gain weight is not the significant fact, as none of these conditions occur in that group. Therefore the increased frequency must be related to these patients' original and/or continued poor nutrition.

The nature of poor nutrition in the group is difficult to explain as they were on supposedly good diets and with the usual dietary supplements. There are a number of persons, both male and female, who are unable to gain weight even on high calorie diets. Possibly the trouble is in some obscure metabolic disorder, in poor absorption from the intestine, or in too rapid dissipation of the food retained.

Hertig, Reid, and others, in 1952, demonstrated in a large series (476) of prematurely separated placentas that necrosis of the trophoblastic-decidual junction occurs, which leads to bleeding and in turn to mechanically separating the placenta from the uterine wall. The cause of this necrosis was thought to be spasm of the arterioles, as seen in toxemias, but it also has been demonstrated that lack of certain vitamins, particularly C and K, can increase the bleeding tendency; thus, by inference, a dietary deficiency, illustrated in these patients by inadequate weight gain, conceivably could be the cause of premature separations.

In hope of avoiding some of these hazards to the fetus, it would seem wise to attempt to increase the weight gain to a more normal amount (that is, 17 per cent of initial weight) by whatever means available. These means are not too reliable, although high calorie diets, syrups of vitamin B_{12}, and older tonics have been used with some success. However, if the fault lies in the patient's status prior to pregnancy, as indicated by the recent article by Tompkins, the nutritional status should be corrected before conception, a difficult task for the obstetrician to accomplish.

SUMMARY AND CONCLUSIONS

An analysis of 1,153 deliveries is presented, in which 67 patients failing to gain at least 10 pounds were found. It is concluded that:

1. Patients initially overweight were not affected by failure to gain.
2. Patients who were normal or less in initial weight had a statistically significant increase in premature separations, smaller babies, prematurity, and fetal deaths.
3. An attempt should be made to attain better nutrition in the underweight person by stimulating weight gain.

TABLE 3.—*Premature Separations of Placenta Encountered in 1,153 Deliveries.*

Case	Weight Gain (lb.)	Initial Weight of Mother: Underweight	Normal	Overweight	Resulting Infant	Birth Weight (lb. – oz.)	Remarks
1	21	x			Stillborn	4 – 1½	Premature by date; massive ablation
2	14	x			Stillborn	6 – 5	Premature by date; massive ablation
3	15			x	Stillborn	4	Premature by date; massive ablation
4	14		x		Stillborn	6	Massive ablation
5	8	x			Neonatal death	4 – 5	Premature by date; hyaline membrane
6	4		x		Live	4 – 11	Premature by date
7	21	x			Live	4 – 13	Premature by date
8	17	x			Live	6 – 5	Premature by date; anemia
9	17	x			Live	5 – 9	Anemia
10	14	x			Live	7 – 15	Anemia
11	18			x	Live	7 – 2	Anemia
12	11	x			Live	5	
13	17		x		Live	6 – 1	
14	23	x			Live	6 – 15	
15	17			x	Live	6 – 10	
16	17			x	Live	7	
17	17		x		Live	6 – 14	
18	18	x			Live	5 – 15	
19	24		x		Live	5 – 11½	
20	13		x		Live	5 – 15	
21	9	x			Live	6 – 4	
22	9	x			Live	6 – 2	
23	8		x		Live	5 – 6	
Total	23 mothers	12	7	4	5 deaths	5.9 Av.	

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ABSTRACT OF DISCUSSION

DR. NOEL BAILEY, Fort Worth: I am appreciative to the essayists for bringing to our attention a fact concerning which little has been written in the past and which in all probability will become increasingly important in the future. It is as serious to gain too little as to gain too much weight during pregnancy, and from this report it seems that the importance of adequate nutrition at the time of conception has a marked bearing on the outcome of the pregnancy.

In this report, 21 per cent of those who had premature separation of the placenta were in the underweight or normal group at the time of the first visit to the obstetrician and 51 per cent were underweight at the end of pregnancy; however, 56 per cent of those underweight at the end of pregnancy had a weight gain of 15 pounds or more. This indicates that the amount of gain during pregnancy has a bearing upon premature separation of the placenta.

None of the 12 patients having an abruption of the placenta and being underweight at the time of delivery had gained more than 23 pounds, and the average gain was 15 pounds, which, if their weight at their first visit had been adequate, would have been an acceptable weight gain.

Eighty per cent of the fetal deaths of this study were in the group in which the mother was normal or underweight

at the time of her first visit, and 60 per cent of the fetal deaths resulted in the underweight group at delivery—this 60 per cent represents 3 deaths of which 2 were by ablation and 1 was by a hyaline membrane in a premature fetus weighing 4 pounds, 5 ounces.

The premature deliveries, 10 per cent, all occurred in groups of patients whose weight was normal or less at the initial visit.

This study indicates that the incidence of premature separation of the placenta, premature deliveries, and fetal salvage is definitely greater in that group of patients whose initial weight is normal or less and that it is difficult to bring these patients to normal weight in time for delivery.

This report and others, especially by Tompkins, emphasize the importance of proper nutrition before conception as a factor in the safe termination of a pregnancy.

Surgery in the Presence of Intrauterine Pregnancy

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IT IS undoubtedly the opinion of most surgeons that elective operative procedures in the gravid woman should be delayed until the termination of the pregnancy. However, there occasionally arises in the gravida the necessity of diagnosing or treating neoplasia or submitting the patient to surgery because of a degenerative or inflammatory process.

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The surgeon automatically assumes a dual responsibility with the pregnant patient. He must be concerned not only with the life of his patient but also with the well being of the fetus. Even though the surgery be mandatory, the calculated risk of aborting that pregnancy must be reckoned with. To assume that all postoperative abortions are directly attributable to the surgical intervention would be erroneous indeed, as it is estimated that 10 per cent of all gestations are aborted.[1]

HERMANN HOSPITAL STUDY

There are 89 cases at the Hermann Hospital in which surgery was performed in the presence of intrauterine pregnancy. Undoubtedly there are more such instances, but at the present time no cross index exists for this complication of pregnancy.

In no case entered in this report was there any history of threatened abortion for that particular pregnancy. With this premise, one may assume that the surgeon was dealing with an apparently normal intrauterine pregnancy in the preoperative period.

The periods of gestation varied from 7 to 35 weeks. There was an approximately equal division in the number of patients receiving additive hormones in the immediate postoperative period and the number receiving only sedation. Anesthesia included local, spinal, and general types.

Of the total of 89 patients operated on, 11 subsequently had abortions in the immediate postoperative course. These losses of the products of conception occurred from 3 to 20 days postoperatively. The greatest number occurred five days later. This fetal loss compares favorably with the incidence of spontaneous abortion. Perhaps the real significance of this study does not lie within this general figure but becomes more evident when the patients are divided into two categories. The first group of patients to be presented will be those in whom the operative procedure was completely extraperitoneal or extra-

TABLE 1.—*Extragenital or Extraperitoneal Surgery in 42 Pregnant Women.*

Procedure	Cases	Gestation (Weeks)
Breast biopsy	16	12, 12, 14, 15, 16, 16, 20, 20, 20, 22, 24, 28, 30, 30, 33, 33
Thyroid surgery	4	16, 26, 27, 28
Vein ligation	4	12, 20, 20, 28
Urologic Study	10	8, 8, 16, 24, 24, 24, 25, 28, 30, 35
Nephrectomy	2	7, 8
Reduction of fracture (closed)	2	12, 28
Thoracotomy (valvulotomy)	2	12, 34
Vaginal cyst resection	1	12
Lipoma (back) resection	1	20
	42	

No abortions occurred.

genital. The remainder of the patients were subjected to procedures in which the peritoneal cavity was entered or the genital tract directly manipulated.

In the group in which the surgery was extragenital or extraperitoneal, 42 cases are presented (table 1). The stages of gestation varied from 7 to 35 weeks. Three of the patients received additional hormones postoperatively, whereas 39 received only sedation.

One valvulotomy was performed at 34 weeks of gestation. The patient withstood the procedure well and three days later had a spontaneous onset of labor. After an uneventful intrapartum course, the patient delivered a living fetus under general anesthesia.

No abortions occurred in this group. All patients tolerated their surgery well and maintained their pregnancy regardless of type of anesthesia, stage of gestation, or the use of postoperative hormones.

In the contrasting category (those in which the peritoneal cavity was entered or the genital tract was manipulated), 47 cases are presented (table 2). The majority of this category received estrogen and/or progesterone in the immediate postoperative course.

TABLE 2.—*Surgery Involving Entering Peritoneal Cavity or Manipulation of Genital Tract in 47 Pregnant Women.*

Procedure	Cases	Abortions	Gestation at Time of Surgery (Weeks) Abortive Cases	Nonabortive Cases
Appendectomy	20	2	7, 8	8, 10, 10, 12, 12, 14, 18, 20, 20, 22, 22, 24, 24, 24, 25, 30, 30, 30
Exploratory laparotomy	6	2	9, 12	12, 12, 16, 24
Myomectomy	4	1	22	8, 12, 18
On cervix uteri				
Polypectomy	1	1	15	0
Knife conization	1	1	14	0
Adnexal surgery				
Corpora lutea (pregnancy)	2	2	7, 10	0
Other cysts	9	0	0	8, 10, 10, 12, 16, 18, 22, 22, 22
Ectopic (twin gestation)	1	1	22	0
Cholecystectomy	1	0	0	24
Examination under anesthesia	1	1	10	0
Umbilical herniorrhaphy	1	0	0	24
	47	11		

Eleven patients aborted postoperatively. Of the 11 patients who aborted, 5 received some type of supplementary hormones whereas the remaining 6 received only sedation. There was a similar division in the number of general and spinal anesthetics administered.

As is shown, 20 appendectomies were performed, with the pathologic diagnosis varying from acute suppurative appendicitis to no significant histologic changes. Two patients aborted postoperatively with neither having received any additional hormones. These abortions were in the earliest gestations of the group—seven and eight weeks.

Out of 4 myomectomies, 1 abortion occurred. This accident occurred in a case in which the excision involved that portion of the uterus ultimately destined to become the lower uterine segment. The 3 nonabortal procedures were all fundal in site. All patients received postoperative estrogen and/or progesterone.

There are varying reports in the literature concerning the dangers associated with removal of the corpus luteum of early pregnancy.[2, 3] In this series, 2 corpora lutea of early pregnancy were sacrificed. One patient received hormones and the other received only sedation. The patient with 10 weeks' gestation aborted three days after surgery, and the seven weeks' pregnancy was aborted 14 days afterward.

Nine other adnexal cysts were removed, all without abortive accidents. Six of the patients received additional hormones. A 22 week intrauterine pregnancy in association with a tubal gestation was aborted two weeks after a unilateral salpingectomy.

The records contain 2 cases in which the cervix uteri was the site of surgery. In 1 instance, the patient miscarried three weeks after simple polypectomy, whereas the other case aborted two weeks after knife conization for stage 0 epidermoid carcinoma diagnosis.

Two patients miscarried following exploratory laparotomies. A tubal ligation was performed in 1 instance, and "lysis of adhesions" was the procedure in the second case. In instances in which the operator diagnosed intrauterine pregnancy and closed the incision without further manipulation, no abortions occurred.

As previously stated, in those cases in which the peritoneal cavity was entered or the genital tract manipulated, there was a fetal loss of almost one-fourth. Only 2 of those abortions occurred, however, when the surgery did not directly involve the genital tract.

SUMMARY AND CONCLUSIONS

A series of 89 cases of surgery in the presence of intrauterine pregnancy is presented. A total of 42 cases did not involve the genital tract or peritoneal

cavity. There were no instances of abortion in this group. Forty-seven cases involved the peritoneal cavity or genital tract directly. In these, 11 abortions occurred. Nine of the abortions followed direct surgery, manipulation, or involvement of the genital tract. Approximately one-half of the patients suffering abortions received additional hormones.

One might conclude that the gravid patient and her products of conception tolerate extragenital surgical procedures well. However, the nearer one moves to the site of pregnancy, the greater the risk of fetal loss. It appears that the site of surgery is a more important factor than is the use of additional postoperative hormones or the type of anesthesia administered.

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Gynecologic Problems of Infancy and Adolescence

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GYNECOLOGY is that branch of medicine which deals with the constitution and diseases of women. Its particular concern is conditions affecting the genital system, but associated lesions of the urinary and intestinal tracts also lie within its province. The great majority of the conditions for which patients consult gynecologists are directly related to menstruation, sexual activity, and childbearing. As a result, the gynecologist is usually thought to be exclusively interested in the problems of adults.

It is generally held that gynecologic disease is comparatively rare in infancy and adolescence. Although some attention has been given to special problems of children, such as gonococcal vulvovaginitis, relatively few physicians in this field have given serious consideration to the diverse conditions which may be encountered in preadolescent and adolescent girls. A serious problem has been created within the organization of the medical profession by failure to assign definite medical responsibility for children between the ages of 12 and 18 years. Ignorance, superstition, and numerous misconceptions on the part of laymen have resulted in the neglect or disregard of gynecologic problems in children. The medical profession has overemphasized the possible psychic trauma associated with proper pelvic evaluation and examination of preadolescent and adolescent girls.

The present report concerns the conditions which were observed in 254 white patients under 20 years of age who were referred for consultation concerning gynecologic complaints. A considerable number of these girls had reached sexual maturity; however, the chronologic age does not provide an accurate index of the genital maturity of the patient. A physician of limited experience may have serious difficulty in appraising the normal genital findings in this age group. He must be fully cognizant of the sequence of physiologic development leading to sexual maturity. Correlation of the findings on general physical examination with the pelvic findings is essential.

DR. FRANK R. LOCK, *Professor of Obstetrics and Gynecology, Bowman Gray School of Medicine, was one of the special speakers at the 1955 Annual Session of the Texas Medical Association in Fort Worth. This paper was presented before the Section on Obstetrics and Gynecology, April 25.*

The normal pattern of progressive sexual development begins at widely separated ages and proceeds at varying rates in different persons, but the sequence of development under normal circumstances is consistent. The deposition of tissue in the breasts and the typical deposit of fat in feminine configuration is the first objective evidence of sexual differentiation. Progressive growth of the external and internal genitalia, with the appearance of pubic and axillary hair, follows, and within a short time one can expect the advent of vaginal bleeding. The time required for the completion of this pattern may be less than one year or may be a period of several years.

GYNECOLOGIC EXAMINATION OF CHILDREN

A child with a gynecologic complaint is almost invariably brought to the physician by her mother or

a close relative. The natural tendency upon the part of the physician is to permit the adult companion to state the child's problem. Our experience with this group of patients, however, has led to the practice of obtaining as much of the history as possible from the patient herself. The children are concerned about their own problems and often will give a clear and concise description which is far more accurate than that presented by their parents. Furthermore, the rapport resulting from such an approach will make it easier to obtain the willing consent of the patient to have a proper pelvic examination.

In the present series of 254 cases, it has been necessary to give anesthesia to only 3 patients in order to make an examination adequate to establish a diagnosis, and only one mother has refused to permit pelvic examination of her child. In taking the history it is relatively simple to establish the fact that the physician is interested in the patient's problem and to assert repeatedly that an examination can be made without appreciable pain. Certainly little, if any, psychic trauma results from pelvic examination when the patient's confidence has been gained and when the examination is performed with gentleness.

The mother is discouraged from accompanying the patient to the examining room. With time and patience, an examining finger can usually be introduced into the vagina without serious discomfort, even to small children. When this is impossible, the vagina can be explored with a blunt metal sound and thoroughly inspected by the introduction of an otoscope through the hymenal orifice with the child in knee-chest position. Rectal evaluation of the pelvis is satisfactory for some of the patients. Occasionally, two or more visits are required before a child can develop sufficient confidence to submit willingly to examination. However, a far more informative examination can be made on a cooperative patient than one who is frightened or crying.

ORGANIC PATHOLOGY

Organic pathologic lesions were encountered in 52 of 254 patients in this series (table 1). Twelve had significant congenital anomalies of the pelvic organs. In only 2 of these 12 patients was an abnormality suspected before they were 16 years of age. The 2 pseudohermaphrodites were inaccurately diagnosed at birth, and their sex was improperly registered. Although I feel that surgical treatment for congenital absence of the vagina and similar anomalies is contraindicated in childhood, early diagnosis and proper orientation of the patient and her family may greatly lessen the emotional problems related to these conditions.

Simple adhesions of the labia are relatively common in early childhood. In the 4 patients with adherent labia seen in this series, the lesions were sufficiently severe to raise considerable question as to whether or not normal genitalia were present. In only 1 of the 4 was anesthesia required in order to permit sufficient separation of the adhesions to determine that normal genital development was present.

TABLE 1.—*Organic Pathologic Lesions Observed in 52 of a Series of 254 Patients.*

	Age (yr.)				Total
	0-5	6-10	11-15	16-20	No.
Adherent labia	4				4
Salpingitis			1	4	5
Vaginitis and cervicitis	2	4	2	3	11
Congenital anomalies					12
Absence of vagina and uterus	1			4	
Absence of vagina with vestigial uterus				2	
Bicornuate uterus				3	
Intersexuality		1		1	
Neoplasms					4
Benign				3	
Malignant	1				
Miscellaneous (breast and obesity)					16
Totals	8	5	3	20	52

Although neoplasms are rarely encountered in this age group, sarcoma botryoides of the vagina was observed in a 17 month old girl who died in spite of total hysterectomy and total colpectomy. Acute degeneration in a large fibroid led to myomectomy in an 18 year old girl, and 2 other patients in the age group between 16 and 20 had large benign ovarian cysts.

Vaginitis was observed less frequently than one would expect. In 2 of the 11 patients whose outstanding complaint was leukorrhea, a foreign body in the vagina was responsible for the symptoms. It is of utmost importance to look for objective evidence of vaginal discharge; in several patients, repeated examinations failed to show evidence of discharge complained of by the mother. No instance of gonococcal vulvovaginitis was encountered. Cultures revealed mixed bacterial infections which responded satisfactorily to simple cleanliness, together with the administration of 0.5 mg. of diethylstilbestrol daily for 10 days in 3 adolescent patients.

FUNCTIONAL DISORDERS

Functional complaints were present in 136 patients (table 2). Prolonged menstrual bleeding is rather common at the menarche, when anovulatory uterine

bleeding is to be expected. Although this may be a source of concern and inconvenience to the patient, it is doubtful that treatment should be administered unless anemia of a significant degree occurs. Simple medical measures, rather than operative procedures, are usually effective in the treatment of functional menstrual problems. The administration of iron, together with regulation of the diet and physical activities, is frequently followed by improvement in the patient's complaints.

TABLE 2.—*Functional Disorders Observed in 136 of a Series of 254 Patients.*

	Age (yr.)				
	0-5	6-10	11-15	16-20	Total
Excessive bleeding			9	23	32
Puberty praecox	2	2			4
Oligomenorrhea and amenorrhea				12	12
Severe dysmenorrhea		1	5	38	44
Psychosomatic disease		2	7	21	30
Miscellaneous					14
Totals	2	5	21	94	136

Dilatation and curettage was used in 7 of the 32 patients with abnormal bleeding, but was not recommended for other menstrual disorders. The administration of hormones may effect a dramatic hemostasis but should be reserved for cases of profuse bleeding. In the majority of the patients who have not been previously treated, cyclic estrogen therapy with the administration of 1 to 1.25 mg. of natural or synthetic estrogen daily for 20 days usually will stop the patient's bleeding within 48 to 72 hours. Irregular or intermittent estrogen therapy, however, often will lead to an increase in the bleeding. It has been my experience that estrogens in large doses often complicate the problem, and if the patient does not respond promptly to the simple plan outlined, progesterone in oil, 50 mg., is administered intramuscularly. Supportive therapy, including transfusions if necessary, is given also.

Puberty praecox upon an idiopathic basis is the most common cause for a precocious menarche. Although one must be aware of the possibility of a granulosa cell tumor of the ovary or some general endocrine disease as a cause of this phenomenon, the absence of a demonstrable mass is a definite contraindication to an exploratory operation or other radical treatment. In 2 of the 4 patients with puberty praecox, cyclic bleeding began at 6 months of age in 1 and at 2 years of age in the other. These children now have been followed 11 and 6 years respectively, and their general physical and intellectual development far exceeds that of other children of comparable age. Common sense and direction of the families concerned have resulted in a satisfactory adjustment, and no appreciable psychologic problems have developed. No evidence of a significant endocrinopathy or tumor has appeared.

Oligomenorrhea and amenorrhea have been infrequent causes for consultation by adolescent girls. In evaluating this complaint it is most important to appreciate the wide individual variations in the appearance of the menarche. Appreciation of the orderly pattern of sexual maturation often will lead to recognition of the fact that no endocrine problem is present. If secondary sexual characteristics are appearing in their proper sequence, no treatment should be initiated for amenorrhea. It should not be necessary to emphasize the importance of a complete examination to rule out the presence of organic disorder before making a decision concerning the management of these patients.

Dysmenorrhea is a significant complaint when it appears in adolescence, since it often represents evidence of an improper orientation of the child to her reproductive function. Although in the vast majority of patients this complaint is purely functional in origin, a statement to this effect without a thorough examination to establish the fact that the patient is free of organic disease will not be accepted by the patient or her family. Successful treatment of the problem is based on a satisfactory personal relationship with the child and her implicit confidence in any statement which is made. It is noteworthy that the 2 patients with congenital absence of the vagina and vestigal uterine horn had intense cyclic pain in the absence of bleeding; this complaint was due to cryptomenorrhea.

In cases of functional dysmenorrhea, a simple statement that the child is physically normal and that there is no reason to anticipate surgical treatment is the first step toward successful treatment, since it allays fears upon the part of the patient and her family. Since functional dysmenorrhea does not occur in the absence of ovulation, it usually does not appear until several months or even years after the menarche. The onset of pain with the first episode of vaginal bleeding is strongly indicative of a psychic origin for the problem and is often an indication that an intractable problem is present. It is my practice to approach functional dysmenorrhea through simple reassurance and the administration of mild analgesic drugs. I have no fear of the use of codeine when it is necessary for the relief of pain, since its administration once or twice each month rarely will lead to addiction or serious consequences.

In the group of patients who do not respond to this simple approach to the problem and in those who obviously have rather fixed menstrual patterns, it is advantageous to create anovulatory menstruation for a month or two in order to permit the patients to

reestablish their confidence and learn that painless bleeding can occur. Ovulation can be suppressed by the administration of moderate dosages of estrogen in the preovulatory phase of the cycle. I give 1 to 2 mg. of diethylstilbestrol or natural conjugated estrogen from the fifth to the twelfth day of the cycle for two consecutive months. This program almost invariably will result in painless bleeding. After two months of estrogen therapy I return to the use of analgesics and reassurance. Although there is no specific evidence that suppression of ovulation in this manner, even over a long period of time, produces any permanent change in the ovary, it is my concept that the patient must learn to accept her normal function and that the sooner a proper adjustment can be made, the better. Suppression of ovulation is of particular value in that group of patients who have nausea and vomiting associated with their menstrual pain.

Psychosomatic disease is suggested when the patient's complaints are in excess of the demonstrable organic lesions, and one must be wary in the evaluation of this group of patients. It is important to insist on objective observation of the patient at a time when she is having difficulty, since her symptoms may be unduly emphasized by an over anxious mother.

Since sexual maturity occurs prior to the age of 20, it is not surprising that 6 of the patients in this series came for premarital examinations, and that 50 were seen for ordinary prenatal care and delivery

TABLE 3.—*Consultations Related to Gynecologic Disease.*

	Age (yr.)		
	11-15	16-20	Total
Premarital examination		6	6
Normal pregnancy		50	50
Abortion		2	2
Urologic disease	1	7	8
Totals	1	65	66

(table 3). Eight of the patients who had symptoms apparently resulting from genital disorders were found to have urologic disease.

SUMMARY AND CONCLUSION

The experience resulting from the gynecologic examination and treatment of 254 girls under the age of 20 years has been reviewed briefly. With 3 exceptions, a satisfactory examination of these children has been accomplished without the use of anesthesia. In 52 of the patients, significant organic pelvic lesions were found. The diverse conditions which were discovered were comparable to those found in adults, except that the incidence of congenital anomalies was unusually high. Major operative procedures were required for the treatment of 4 patients with pelvic neoplasms.

One hundred thirty-six of the patients had functional complaints. Simple medical measures, including the administration of iron when it is indicated and regulation of diet and physical activities, are frequently followed by improvement in such complaints. Dilatation and curettage was used in 7 of 32 patients with abnormal bleeding but was not recommended in other conditions. Hormonal therapy should be used sparingly and only if other simpler measures fail. Prolonged or intensive hormonal therapy usually will complicate the problem.

The chronologic age is not an absolute index of the sexual age of the patient, and gynecologic problems usually expected in an adult not infrequently are encountered in children.

♦ Dr. Lock, Professor of Obstetrics and Gynecology, Bowman Gray School of Medicine, Winston-Salem, N. C.

Operative Gynecology

PHIL T. WILLIAMS, JR., M. D.

San Antonio, Texas

THE general idea for this talk has been germinating in my mind for months, but the organization of my many impulses along this line into a logical whole has proved difficult. The very title proved elusive and as a result the anonymous heading above was tacked on. In a fit of inspiration I considered the title, "Stalking the Wily Uterus, or, Through Darkest Pelvis with Scalpel and Hemostat." Simile is useful, but too much levity might well depreciate the importance of the subject. However, I am constrained to observe that the female organs are the

DR. PHIL T. WILLIAMS, JR., *presented this paper for the Section on Obstetrics and Gynecology at the Texas Medical Association Annual Session in Fort Worth, April 26, 1955.*

least wily and require less stalking than any other organs of the body—and thereby hangs the inspiration for what follows.

In the process of grading gynecologic procedures for the past 18 months[1] I and my cohorts have been impressed by the frequency with which ill conceived operations on the female pelvis occur. From time to time, and in particular cases, we have commented on the apparent reasons for the failure to evaluate adequately the questions of whether to operate and what operation to perform. The reasons, after a time, were found to recur with some regularity. I have attempted to set down the more frequently recurring reasons and in so doing find that they fall into two categories —returning to our simile of the hunt—the quarry and the hunter. By looking closer at both we may be able to help achieve the true sportsman's goal of worthy, if not always numerous, trophies of the hunt.

QUARRY

The quarry—in this case the pelvic sexual organs of the female—by their very characteristics predispose themselves to operative attack.

1. They are not essential to the life of the patient. We can remove every scrap of them from the body without seriously threatening her life. This, in contradistinction to such structures as the liver, kidneys, lungs, and of late, even the heart. One thinks once, twice, and yet again and makes sure of his evaluation of the situation before removing, or renovating, these precious organs without which one fares rather poorly indeed. Not essential to life? Indeed! Which came first—the chicken or the egg?

2. Their removal is not grossly obvious. The pelvic organs can be removed without the change being more than a shade of suspicion—even to the point that such paragons of feminine desirability as bathing beauties and fan dancers may be completely "neutralized" without impairing their public relations. No, pelvic mutilation does not produce esthetic disfigurement. We might contrast the pelvic organs with the breasts in this regard. The breasts are no more essential; indeed, less so. The breasts, however, are obvious (she hopes) and their esthetic value protects them from operative assault except in direst circumstances.

3. They are under constant suspicion by their owner. Because of the periodic reminding effect of menstruation, maternity, and the licentious stares of the male of the species, every woman's attention is centered on her femininity and the organs thereof to a much greater degree than upon any other part of her body and much more so than is true of the male. This awareness results in cognizance of variations from "normal" which would be ignored in other systems of the body. Further, this awareness explains the frequent association of neurotic symptoms with the pelvic organs.

4. Their functional and physical "norms" are poorly understood. The laity have practically no concept at all of what is normal function for the pelvic organs. This is typified by the woman who is upset because she menstruated twice in one month and will not be reassured even when it is pointed out that starting periods on the first and twenty-ninth days of the month is acceptable behavior. Physicians, no less, in their own deliberations often exhibit a poor grasp of what is normal and what is not.

The preceding are felt to be the most important basic characteristics of the pelvic organs which predispose toward, shall we say, generous indications for operation. Also to be reckoned with from the patient's standpoint are fear of more (or any) pregnancies and fear of cancer.

HUNTER

Most of the reasons for unnecessary operations in this field which directly concern the hunter—in this case the operator—stem from either the aforementioned characteristics of the "quarry" or from our tenaciously retained romantic concepts of the operative component of medical therapy.

1. Operation is not the ultimate in treatment. All too often we find that other forms of treatment were tried unsuccessfully and then hailed proudly as the chief reason for performing an operation. There seems to be an analogy in feeling here with the old frontier justice motto of, "Let's give this lying horsethief a fair trial then hang him." The operator seems to imply that he has gone through the formality of conservative treatment which did not work—as he knew it would not—and is now licensed to cut at will. It would appear that a more valid reasoning might be to employ operative treatment because in a given situation it offers the best and safest means of management. This policy should govern rather than the negative approach which often only reflects a failure to apply correctly nonoperative therapy.

2. Major gynecologic operations practically never should be diagnostic procedures. Preoperative evaluation of history and physical examination together with all pertinent studies, including dilatation and curettage and biopsies, should make it possible to enter upon pelvic operations with as high a percentage of correct preoperative diagnoses as in any other operative specialty. To undertake a laparotomy for the purpose of managing a condition manifest by pain alone or abnormal bleeding alone is certainly foolhardy when so many means are available to make a definitive diagnosis. These and most other pelvic

symptoms and findings may be and often are caused by changes better managed nonoperatively.

3. What are the limits of normal in pelvic anatomy and physiology? What pelvic findings justify any treatment at all and, more specifically, what findings justify operation is a problem the incorrect answer to which lies back of many unnecessary pelvic operations. I would like to list a few frequent error producing concepts.

a. Retroversion. Certainly retroversion usually is normal and asymptomatic. The condition may cause symptoms, especially if it is acquired rather than congenital. Since the symptoms are not specific, a pessary trial is mandatory before operative treatment is considered. (To justify an affirmative decision such a trial should include return of symptoms after removal of the pessary.)

b. Bleeding irregularly. Within reason almost any bleeding pattern in a woman who can conceive and bear children is normal. If she does not become anemic and is not sterile, tampering with her cycle is usually not justified.

c. Midcycle pelvic pain. Usually the bleeding from the site of the ruptured follicle is scant enough that there is no pain. However, occasionally pain is felt at this time, and on rare occasions there may be bleeding enough to produce a spreading hemoperitonitis which justifies laparotomy. Far too frequently abdomens are opened for relatively mild mittelschmerz symptoms in the mistaken impression that a twisted cyst or ectopic gestation exists. A careful history with an adequate physical check should identify this normal variant.

d. Incidental removal of corpora lutea and small cysts. Everyone agrees that the corpus luteum is a normal structure. Not everyone seems able to identify one in situ. A frequent occurrence is removal of corpora lutea found incidental to other procedures or found when laparotomy is done on a patient with the midcycle pain syndrome. (In 200 major gynecologic cases we observed 2 in which the only tissue removed was an ovary with normal corpus luteum and 5 in which normal corpora lutea were removed incidentally. These latter 5 do not include cases in which the ovary was removed for other reason. They were resections performed to remove what was interpreted as pathologic tissue.) In the same category is excision or needling of small ovarian cysts. I do not think that follicle cysts smaller than about 3 cm. can be considered abnormal and believe that their excision is meddlesome operating. More potentially dangerous is puncturing or needling these small cysts because of the possibility that they may be other than follicles and by needling be given an early opportunity to spread.

4. What composes significant pathology? One step beyond "What is normal?" should be taken to point out that the mere presence of a condition which can be given a name by the pathologist does not always mean that excision of the lesion or the parent organ is justified. The problem is one of degree for the most part. In grading cases we see on almost every report a number of pathologic diagnoses which are not believed to be significant as indications for operations because they either are not likely to be symptomatic or are not precursors of serious disease. Among these are the following (I refer to the fact that these terms often mean nothing in relationship to the picture at hand; they are legitimate diagnoses in the proper picture):

a. Chronic cervicitis.

b. Squamous metaplasia of cervix.

c. Adenomyosis uteri (microscopic).

d. Leiomyomas (depending on size and location; we classify as significant fibroids larger than a 3 month fetus, those causing definite blood loss anemia, or those the site of acute degeneration).

e. Chronic pelvic peritonitis (where used to describe separated adhesions).

f. Peritoneal inclusion cysts (that is, cysts of Morgagni).

g. Simple cysts of ovary (less than 7 cm. in diameter if they are the primary indication for operation; 3 cm. or less if an incidental finding).

h. Endometrial hyperplasia (nonsecretory, atypical, or mixed, when the basis for major operation).

Since most operators look to the pathologist to justify or verify their indications for operation (which is an error), it behooves the pathologist either not to record insignificant diagnoses or to designate which diagnoses are likely to be significant and which are not.

CONCLUSIONS

I believe that the hunter can improve his hunting by adhering to a few basic ideas in dealing with gynecologic problems:

1. Always write or dictate a history and results of a physical examination himself, before operation, to include gynecologic data pertinent to all women plus any special data of importance in this particular case.

2. Hold the function of childbearing in as high esteem as any other vital function. It is just as vital to survival of the race as food assimilation is vital to survival of the individual—and future generations cannot speak in their own behalf—the physician's conscience is their advocate.

3. Assure himself that the pathologic lesion is significant either statistically or as the cause of this patient's disability.

4. Select the procedure which accomplishes the necessary end with the least interference with function yet which accomplishes all that is indicated.

5. Ask himself: "Would I favor this management of this case if the patient were my mother—and I were not yet born?"

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Dr. Williams, 929 Manor Drive, San Antonio.

ABSTRACT OF DISCUSSION

DR. STEWART A. FISH, Dallas: The paper just presented is an extension of Dr. Williams' fine recently published work on the grading of operative procedures. With his system as a basis it is even more evident that we need our own surgical police in some instances as the S.P.'s are needed in the Navy.

Mengert has pointed out that ignorance and mysticism are two great causes for unnecessary surgery. Many physicians have a sincere but mistaken belief that surgery is a panacea for all ills. Often, patients with neuroses manifest in pelvic symptoms will be operated upon in a real effort to help the patient but with poor results, because the true emotional nature of the patient's illness is not recognized. There is nothing wrong with exploratory operation for pelvic pain in some instances, but if nothing is found, it is a mistake to excise a follicle cyst and tell the patient that it probably was the cause of her difficulty. In women with this problem it is wise to advise the patient of one's intentions and make it plain before operation that if nothing is found only the appendix will be removed. The patient should have no complaint with this approach, and she cannot at a later date maintain the operation was not extensive enough and blame further neurotic symptoms on an incomplete operation. Occasionally the surgeon in desperation will operate on a patient to avoid personal mental strain as it is often more difficult and time consuming to convince a patient her difficulties are on an emotional basis than it is to spend a short while in the operating room.

The Tissue Committee and the Obligatory Consultation rules have made us cognizant of the importance of control of operative procedures, but though they are a step in the right direction, they are not the final solution. We know how normal appearing histologically a uterus may be which is removed from a woman who nearly exsanguinates from repeated functional bleeding. Willis Brown has pointed out recently how fear of the Tissue Committee may interfere with proper treatment, for example, in premenopausal patients with abnormal bleeding. He notes an instance of a woman in her late forties who had curettements two times and transfusions three times, and because of fear of the Tissue Committee, further curettage and transfusions were contemplated by the doctor and the obligatory consultant.

I am sure there are few physicians who maliciously advise unnecessary operations; so if we spend a little more time diagnosing our problem cases as Dr. Williams suggests, we can improve the quality of care we give our patients and prevent the spread of adverse publicity about gynecologic procedures.

Coccidioidomycosis

A Roentgen Study

WARNER A. PECK, JR., CAPT., MC, and SAMUEL S. ROMENDICK,* MAJOR, MC

Fort Bliss, Texas

COCCIDIOIDOMYCOSIS is an endemic disease present, primarily, in the arid southwestern part of the United States,[15, 17, 18] including a large part of West Texas and the Rio Grande Valley. It is caused by a biphasic fungus, Coccidioides immitis, which is known to exist in its infectious state in the sandy soil of this area.

The portal of entry of the dust borne infectious vegetative spores of Coccidioides immitis in human beings, in practically all instances, is the respiratory tract. In the host's pulmonary parenchyma, the inhaled spores mature to form spherules which propagate by endosporulation. A correlation between the periodic dust storms occurring in the endemic area and the incidence of new cases of coccidioidomycosis has been noted.[4] These dust storms enable the resistant spores to be transported far from their natural habitat. Cases have been recorded wherein the disease undoubtedly was contracted by the patient merely passing through the endemic area.[18] Since the incubation period of this disease is thought to be from 10 to 21 days, symptomatic cases in this era of rapid transportation may occur far removed from the area of initial infection.

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The majority of those infected with Coccidioides immitis may remain asymptomatic and present no stigmas of active disease. In about 40 per cent of the infected population, symptoms occur and may vary from mild malaise to those of rather severe acute respiratory inflammatory disease associated with cough, some expectoration, fever, and frequently chest pain

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of varying severity. On occasions hypersensitive skin reactions occur as well as joint manifestations. Leukocytosis with eosinophilia is frequent. The chest roentgenographic findings, while not specific, often

months after the original benign pulmonary phase, thus usually representing a continuous and rather rapid progression of the disease.

Although the diagnosis of coccidioidomycosis may be suspected clinically, it can be readily confirmed in the laboratory.[18] A positive local reaction to intra-

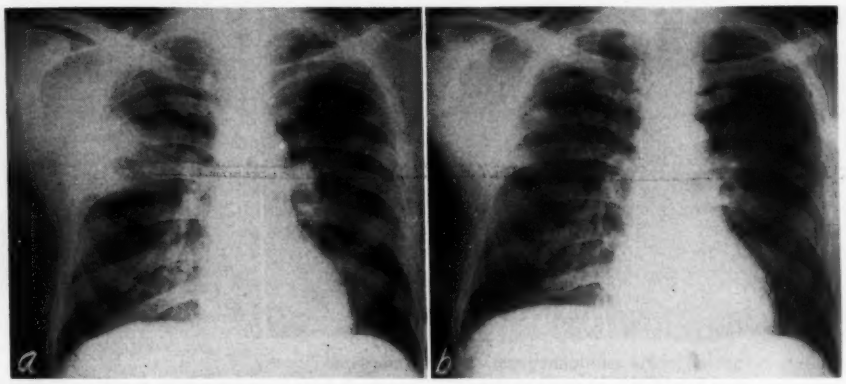

Fig. 1. Case 1. a. An initial chest roentgenogram revealing pneumonia in the basilar segments of the upper lobe of the right lung.

b. A roentgenogram made 15 days later showing clearing of the pneumonic infiltration with 2 fibrotic "coin lesions" remaining.

will be the first clue to the diagnosis and will suggest that the physician obtain confirmatory laboratory studies.

A rarer, malignant, secondary or disseminated form of this disease occurs approximately once in every 400 cases among the white race, and approximately ten times as frequently in the darker skinned races. This disseminated or granulomatous form of the disease has a mortality of more than 50 per cent. Any organ system in the body with the characteristic exception of the gastrointestinal tract may be affected.[4] Males are more frequently afflicted than females. Disseminated disease rarely occurs more than several

dermal coccidioidin is the first sign to check for in a suspected case. This test usually becomes positive in from 10 to 45 days after exposure, or 2 to 21 days after the onset of the acute disease. It may therefore be necessary to repeat the skin test to rule out a delayed response. In rapid dissemination to the granulomatous form, anergy may result, and with this, the skin test may never become positive. The skin test may remain positive for variable periods of time (5 to 10 years or more) even after complete resolution of any detectable stigmas of coccidioidal disease. The persistence of a positive coccidioidin skin reaction in the absence of clinical disease is thought to indicate

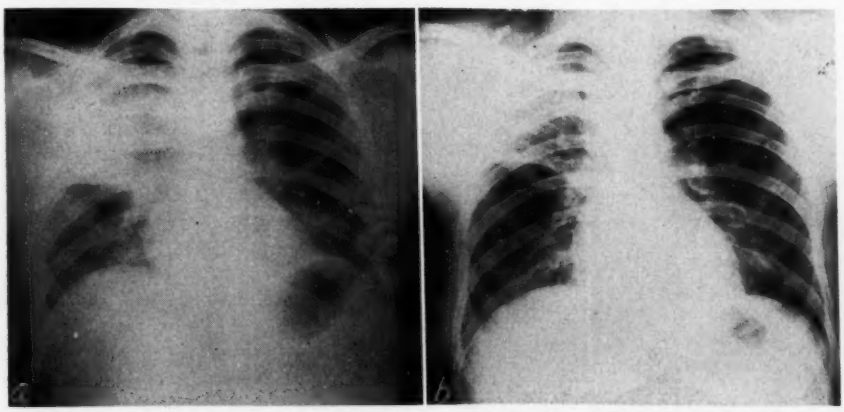

Fig. 2. Case 2. a. An initial chest roentgenogram revealing a pneumonic process in the upper lobe of the right lung.

b. A roentgenogram made four days later showing considerable clearing of the pneumonic infiltrate with the appearance of regional paratracheal adenopathy.

immunity to further exogenous reinfections.[19] The reversal of a positive skin reaction to negative in the presence of active disease should be considered as strong evidence for dissemination, whereas the conversion from negative to positive reaction is indicative of a recent coccidioidal infection.

Serologic examination by precipitin and/or complement fixation studies are not only important in the diagnosis, but also, by serial examinations, in the evaluation of the extent and activity of the process.[18] A rising complement fixation titer is indicative of dissemination of the disease.

Direct smear of the sputum may show the spherules. Since the cough may be nonproductive, bronchial aspirations and/or washings have been utilized. Culture of sputum or bronchial secretions, although fraught with the ever present danger of infection to the laboratory personnel,[9, 18] has been used and is conclusive when positive.

This study is based on an analysis of 40 bacteriologically proven cases of coccidioidomycosis, including 34 patients with benign or localized disease and 6 with disseminated disease, seen at the William Beaumont Army Hospital, El Paso. The clinical manifestations of our cases in all instances coincided with those described in general earlier in the paper. However, the most frequent symptom in our series was chest pain of varying severity, and occurred in more than 70 per cent of the cases.

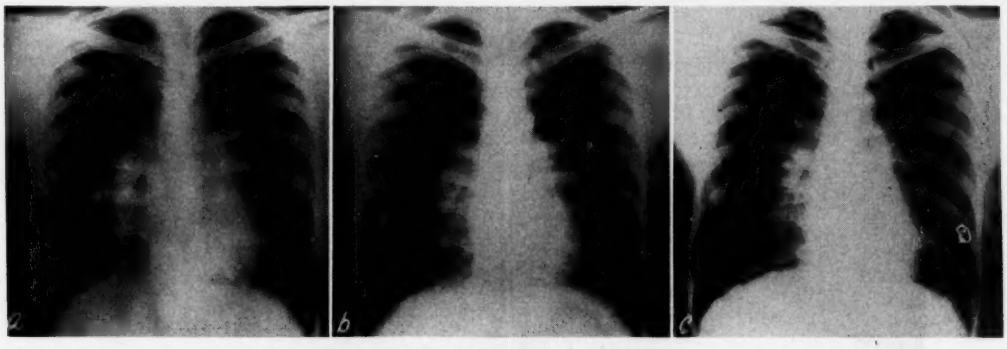

Fig. 3. Case 3. a. An initial chest roentgenogram revealing an area of pneumonitis in the right midlung field.
b. A repeat film after four days demonstrating some clearing of the infiltrate with the appearance of regional hilar adenopathy.
c. A final roentgenogram made six weeks later revealing normal hilar shadows and a "coin lesion" in the right midlung field.

ROENTGEN FINDINGS

The findings on chest roentgenograms, especially serial films, although not necessarily diagnostic in themselves, frequently should lead one to suspect coccidioidomycosis and resort to other confirmatory studies. A roentgenographic classification of this disease is presented in table 1.

In group IB of the classification, that is, localized

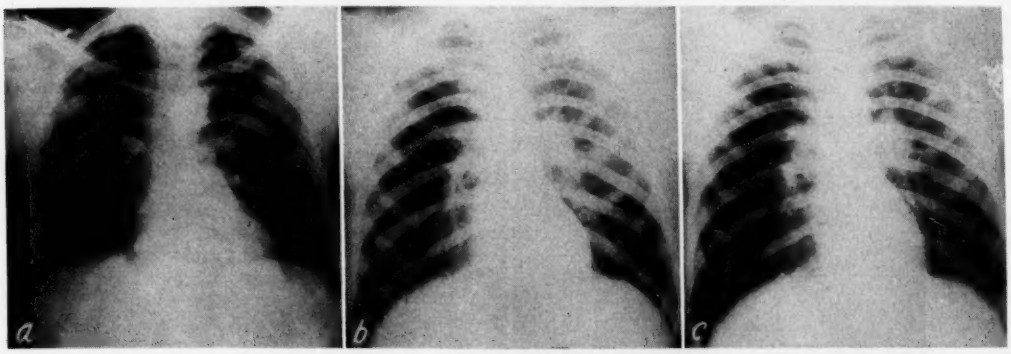

Fig. 4. Case 4. a. An initial chest roentgenogram revealing multiple bilateral areas of pneumonitis.
b. A repeat roentgenogram 11 days later showing some clearing of the pneumonic infiltrates bilaterally with the appearance of bilateral regional hilar adenopathy.
c. A film made two weeks later revealing further progression of hilar adenopathy with further regression of parenchymal disease.

pneumonia without adenopathy, the roentgen picture is entirely nonspecific. Unless suggestive clinical features, such as eosinophilia, dermatologic manifestations, or chest pain out of proportion to the amount

TABLE 1.—*Roentgen Findings in Coccidioidomycosis.*

I. Benign or primary coccidioidomycosis
  A. Pneumonic infiltrate with adenopathy
    1. Localized
    2. Multiple
  B. Pneumonic infiltrate without adenopathy
    1. Localized
    2. Multiple
  C. Residuals
    1. Cavity
    2. "Coin lesion"
    3. Adenopathy
    4. "Unresolved pneumonia"

II. Disseminated coccidioidomycosis
  A. Diffuse nodular infiltrates with adenopathy
  B. Pneumonic infiltrates with adenopathy

of parenchymal involvement, are present to suggest skin testing, serologic studies, or sputum cultures, the differential diagnosis of this roentgenographic picture must include the myriads of causes for pulmonary infiltrations. However, the usual two to six week period in which roentgenographic regression occurs serves to rule out most of the chronic disease processes, while the lack of response to the usual antibiotics may serve to rule out most of the other acute pulmonary diseases. In our series only 2 cases are included in this group. The lack of specificity in the roentgen appearance of this lesion, indicates that an appreciable number of cases that would have fallen into this category probably were misdiagnosed as atypical pneumonia.

The presence of hilar and/or mediastinal adenopathy (IA, table 1), especially if it appears as the parenchymal infiltrate begins to regress, always should cause the observer to include coccidioidomycosis high on the list of possibilities. The incidence of adenopathy in coccidioidomycosis has been mentioned as approximately 30 per cent.[8, 11] However, it is noteworthy that in our series adenopathy was present in 75 per cent. Furthermore, we have found the adenopathy to be more marked in our more acute cases. Hilar adenopathy may persist even after the parenchymal lesions clear, and persistent adenopathy of 16 months' duration has been recorded.[23] However, prolonged adenopathy should make the observer suspicious of primary tuberculosis.[1]

The coccidioidal pneumonic infiltrate per se is nonspecific in its roentgen appearance and may be peribronchial, nodular, subsegmental, and occasionally lobar in distribution. Others have remarked on the presence of multiple areas of pneumonia (IA2 and IB2, table 1) as being suggestive of coccidioidal etiology.[8] We, too, have found that multiple, scattered pneumonic infiltrations either with or without associated adenopathy are frequently of coccidioidal origin. Multiple areas of pneumonia were present in 7 of our benign cases. In 5 of the 7 cases adenopathy was also present. Patients exhibiting multiple areas of pneumonia, with or without adenopathy, always should be investigated for coccidioidomycosis.

The differential diagnosis of group IA of our classification necessarily must include conditions associated with hilar or paratracheal adenopathy, such as sarcoidosis, lymphoma, primary tuberculosis, infectious mononucleosis,[10] erythema nodosum,[3] tularemia, and bronchogenic carcinoma.

The lymphomas and sarcoidosis initially may resemble coccidioidomycosis and frequently the final diagnosis must await biopsy of peripheral and/or scalene lymph nodes. Culture in addition to microscopic sectioning of the removed lymph nodes may be utilized to demonstrate the exact etiologic agent of the disease.[16]

Erythema nodosum and/or erythema multiforme are both seen in acute benign coccidioidomycosis. They represent hypersensitivity reactions and, particularly with erythema nodosum, are thought to indicate resistance to dissemination. This is borne out by the fact that these conditions have a greater incidence among females and are rarely seen in the Negro. Erythema nodosum is nonspecific as to etiology and may be secondary to a variety of infections or drug allergies. Since erythema nodosum and/or erythema multiforme represents a hypersensitive state, the coccidioidal etiology can be readily determined by means of the coccidioidin skin test. C. E. Smith stated that a negative skin reaction to 1:100 coccidioidin in patients with erythema nodosum eliminated the possibility of its being of coccidioidal origin.[18] Sosman has reported that 15 per cent of patients with erythema nodosum will demonstrate hilar adenopathy,[3] whereas others have reported nonspecific parenchymal infiltrates in association.[13] Therefore, differentiating by radiographic means is not possible. However, a negative 1:100 coccidioidin skin test in such cases indicates that the etiology is other than coccidioidal.

In our cases of acute disseminated coccidioidomycosis the roentgen picture invariably has been associated with prominent hilar and mediastinal adenopathy (II, table 1). The most usual picture is that of diffuse nodular pneumonia infiltrations with pleural involvement and associated hilar and paratracheal adenopathy. According to Forbes, this represents a hematogenous seeding from the primary site.[4]

Osteomyelitis of a nonspecific appearance is a fre-

quent occurrence in the disseminated disease, and subsequent draining sinuses are common.

Coccidioidomycosis is second only to tuberculosis and histoplasmosis in its propensity to leave roentgen residuals (IC, table 1). These residuals include (1) cavities which are characteristically thin walled, usually in the upper lobes, and usually single; (2) single or multiple solid foci (coccidioma); (3) persistent hilar adenopathy; (4) calcification; and (5) less often localized bronchiectasis and fibrosis (unresolved pneumonia).

A smooth, thin walled cavity without surrounding parenchymal disease seen on chest roentgenograms is thought by some authors to be pathognomonic of coccidioidomycosis. However, further laboratory proof should be obtained. These cavities occur as residuals in from 3 to 8 per cent of primary lesions and may persist for months or years. Occasionally they may fluctuate markedly in size because of intermittent and/or incomplete bronchial obstruction. In cavitary coccidioidomycosis surgical intervention is occasionally necessary for marked increase in size, repeated severe hemoptyses, secondary infection, or the development of a bronchopleural fistula resulting from the transpleural rupture of a cavity. In Winn's large series, 65 per cent were associated with hemoptyses usually negligible in amount.[23] Although the organism in its pathogenic phase frequently may be cultured from the sputum in such cases, no instance of man to man transmission has been reported. Most authorities believe that cavitation is associated with a high degree of resistance to dissemination and that the cavity per se does not justify surgical excision.

"Coin lesions," or more accurately coccidiomas, may result when the initial area of necrosis is too extensive to heal by resolution. This residual occurs

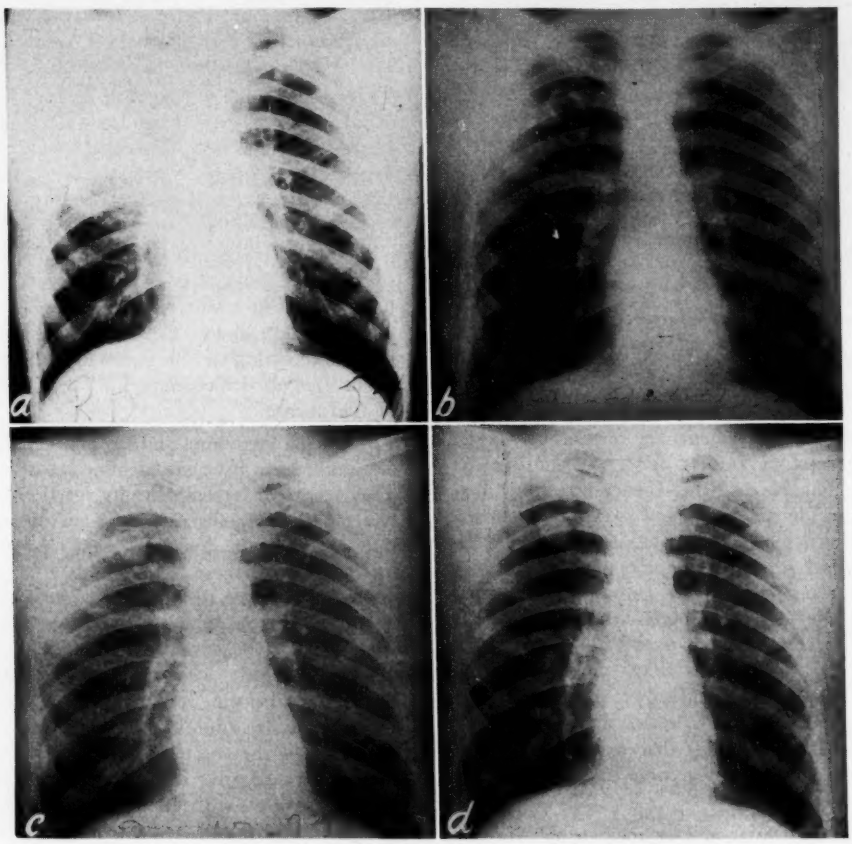

Fig. 5. Case 5. a. Initial chest roentgenogram showing pneumonia of the upper lobe of the right lung.

b. A roentgenogram made 18 days later revealing a thin walled cavity in the right infraclavicular area with almost complete clearing of the pneumonic process.

c. A film made approximately one month later showing the cavity partially filled in.

d. A final roentgenogram approximately three months later revealing a "coin lesion" resulting from the complete filling in of the cavity.

in less than 5 per cent of the cases. Occasionally these coccidiomas result from the filling in of previous cavities. Coccidiomas calcify less commonly than do tuberculosis lesions and are usually located in an upper lobe. "Daughter nodules" similar to those seen in healed primary tuberculosis may occur. The usual coccidioidal "coin lesion" is not calcified and as such presents a diagnostic problem. Frequently one may observe the development of a coccidioma during the course of a definitely diagnosed case of coccidioidomycosis. According to C. E. Smith, endogenous reinfection from a healed focus is not a likely possibility.[19] Furthermore, sputum, positive for Coccidioides immitis, is not to be expected from most such lesions. We, therefore, are of the opinion that surgical excision should be held in abeyance as long as it is definitely known that such lesions are the residuals of an active coccidioidomycosis.

Long term persistent hilar and/or mediastinal adenopathy is a rare residual finding in coccidioidomycosis as is also the so-called "unresolved pneumonia," which is either slow resolution or postinflammatory fibrosis.

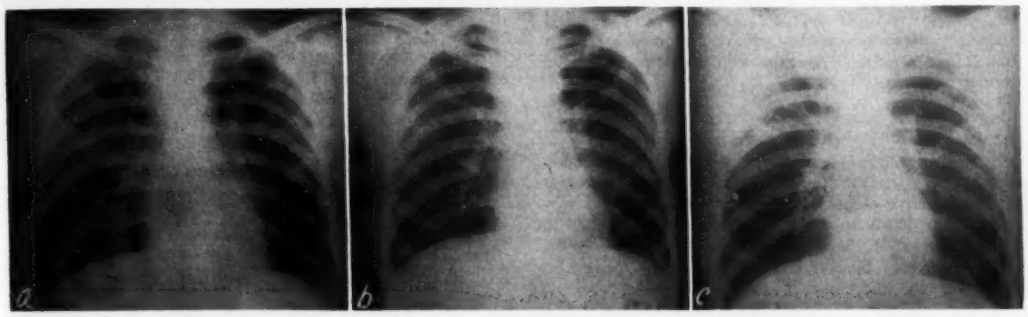

Fig. 6. Case 6. a. Disseminated coccidioidomycosis. An initial chest roentgenogram revealing only markedly enlarged mediastinal adenopathy.
b. A roentgenogram one week later showing progression of nodular infiltrations bilaterally with the adenopathy unchanged.
c. A film made approximately six months after onset of disease revealing an essentially negative chest.

CASE REPORTS

The following cases are representative of our series.

CASE 1.—A 42 year old Negro man was admitted to the hospital because of chest pain, cough, and blood streaked sputum of three days' duration. He did not appear acutely ill. The initial chest roentgenogram (fig. 1a) revealed an area of pneumonia in the basilar segments of the upper lobe of the right lung. A coccidioidin skin test was highly positive. A culture of his sputum revealed Coccidioides immitis. A repeat chest film (fig. 1b) after 15 days revealed the parenchymal infiltration to be clearing with two fibrotic areas persisting laterally in the right upper lobe. No evidence of regional adenopathy was present. Another chest film made three weeks later showed further clearing of the disease.

The presence of chest pain out of proportion to the roentgen findings led us to suspect coccidioidomycosis.

CASE 2.—A 21 year old, Spanish-American man was admitted to the hospital because of severe chest pain, cough, and slight expectoration. His temperature never went over 101 F. although he appeared acutely ill.

An admission chest roentgenogram (fig. 2a) revealed a pneumonic process in the right upper lobe, sparing only the apical subsegment. A repeat film (fig. 2b) four days later revealed considerable clearing of the pneumonic infiltrate with the appearance of regional paratracheal adenopathy. A final roentgenogram made 12 days later showed complete clearing of his disease in a total of two and one-half weeks.

This man also had a positive coccidioidin skin test and his sputum was positive for Coccidioides immitis on culture.

CASE 3.—A 28 year old white man with coccidioidomycosis proven by coccidioidin skin test and sputum culture again clearly demonstrated the appearance and regression of hilar adenopathy. The first chest roentgenogram (fig. 3a) showed pneumonic involvement in the right midlung field. The second film (fig. 3b) made four days later demonstrated clearing of the infiltrate with the appearance of a regional hilar node. The final film (fig. 3c) made six weeks later revealed normal hilar shadows with a fibrotic area persisting in the parenchyma of the right lung.

CASE 4.—A 19 year old white man also revealed considerable toxicity on admission. He had severe chest pain, cough, and slight expectoration. He failed to respond to the usual antibiotics, and coccidioidomycosis was proven by the skin test and sputum culture.

The chest film on admission (fig. 4a) revealed multiple bilateral areas of pneumonia which after 11 days (fig. 4b) had regressed with the appearance of bilateral adenopathy. Two weeks later (fig. 4c) there was further progression of the adenopathy although the lung lesions continued to regress. The final film six months later revealed an essentially negative chest.

CASE 5.—This case presented another aspect of coccidioidomycosis. A 23 year old white man on admission presented the usual symptomatology of an acute pneumonia. The initial chest roentgenogram (fig. 5a) revealed an acute pneumonic process in the upper lobe of the right lung. Three days later evidence of excavation in the pneumonic

area was noted. Films made 15 and 18 days later (fig. 5b) revealed a thin walled cavity with almost complete clearing of the pneumonic process. This cavity promptly began to fill in as seen on the third film (fig. 5c) one month after admission. The last film (fig. 5d) made approximately three months later revealed a "coin lesion" at the site where the cavity had been.

Although on admission this man's sputum was positive for Coccidioides immitis, as expected it was negative after the cavity filled in.

CASE 6.—This case was one of disseminated coccidioidomycosis. This 19 year old white man was admitted to the hospital because of a painful swelling in the neck, malaise, weight loss, and fever. Physical examination was essentially negative except for marked, diffuse cervical adenopathy. Skin tests with coccidioidin were negative even in a dilution of 1:10. Serologic studies were positive for coccidioidomycosis. Biopsy of a cervical lymph node also was positive for coccidioidomycosis on both microscopic section and culture.

The initial chest film (fig. 6a) revealed only markedly enlarged mediastinal adenopathy. A repeat film (fig. 6b) one week later showed nodular infiltrates in both lungs in addition to the adenopathy.

With supportive therapy the disease gradually cleared. After approximately two months there was complete clearing of the parenchymal infiltrates as well as a decrease in the size of the mediastinal mass. The last film (fig. 6c) made approximately six months after the onset of the disease was within normal limits. This man was sent back to limited military duty and was doing well approximately one year later.

CASE 7.—This case was one of disseminated coccidioidomycosis that had a fatal outcome. This patient was a 29 year old Negro man who came to the hospital complaining of harassing, slightly productive cough, malaise, weight loss, and fever. These symptoms began only one month after his coming to this area for the first time. Cervical, mediastinal, and hilar adenopathy was noted. His white blood cell count upon admission was 18,000 per cubic millimeter with 35 per cent eosinophils. Skin tests with coccidioidin were negative even in a 1:10 dilution. Sputum cultures were positive for Coccidioides immitis. It is noteworthy that in one specimen of his sputum the coccidioidal mycelia were noted on direct smear. This finding is extremely rare although several reports of mycelia in necrotic cavities have been reported.[5, 7]

A roentgenogram on admission (fig. 7a) showed a diffuse nodular pneumonia with enlarged hilar and paratracheal nodes. A subsequent film (fig. 7b) after one month showed an increase in pneumonia with pleural disease. Pleural disease is much more common in disseminated coccidioidomycosis than the usual primary infection. The third film (fig. 7c) demonstrated a pericardial effusion which developed after the patient had spent one month in the hospital. The final film several days prior to death revealed progression of his pneumonia. This man had a rapidly fatal illness, death occurring four and one-half months after the onset of symptoms.

CONCLUSIONS

Active symptomatic coccidioidomycosis occurs in 40 per cent of persons infected with Coccidioides immitis. Almost all these patients will show roentgenographic chest abnormalities. The most frequent symptom of active disease is pleuritic chest pain.

The roentgenographic appearance of pulmonary coccidioidal infiltrates is not specific in itself. However, an associated regional adenopathy, especially if it appears as the parenchymal infiltrates regress, should make the observer suspicious of coccidioidomycosis. Multiple areas of pneumonitis, especially if regional adenopathy occurs, also should lead one to suspect coccidioidomycosis.

Thin walled cavities and "coin lesions" are the most common residuals of coccidioidomycosis. The development of a "coin lesion" in an area of proved coccidioidal infection is, in our experience, not a surgical lesion. However, since the incidence of "coin lesions" as a residual of coccidioidomycosis is relatively low, even in the coccidioidal endemic area, such lesions the development of which was not observed should be treated in the approved manner, that is, with resectional biopsy.

Fig. 7. Case 7. a. Disseminated coccidioidomycosis. An initial chest roentgenogram revealing bilateral nodular infiltrations with markedly enlarged mediastinal and hilar nodes.

b. A roentgenogram made approximately one month later revealing an increase in nodular infiltrations and adenopathy.

c. A retouched photograph of an angiocardiogram demonstrating pericardial effusion, especially on the right.

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PUBLIC HEALTH POSITIONS

Examinations for the position of director of occupational health will be conducted throughout the state at a date to be announced by the Merit System Council of the Texas State Department of Health. Applications may be obtained from the Council, 814 Littlefield Building, Austin.

Nerve Injuries In Fresh Fractures

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Houston, Texas

THE purpose of this paper is threefold: (1) to define types of nerve injuries associated with fresh fractures, (2) to point out the site of fractures and associated nerve injuries, and (3) to discuss treatment of the injured nerves.

TYPES OF INJURIES

There are three types of nerve injuries seen in association with fresh fractures, namely, neurapraxia, neurotmesis, and axonotmesis. In neurapraxia we are dealing with a relatively transient paralysis; the sensory loss may be very slight but the motor palsy most

DR. ROBERT J. GOODALL *read this paper before the American Fracture Association on October 14, 1954, at Houston.*

apparent. This type of nerve injury usually recovers spontaneously and is complete in recovery in most cases before conclusion of the treatment of the fracture. Neurotmesis and axonotmesis are clinically difficult to distinguish between, for in both there is a complete degenerative lesion. In axonotmesis the Schwann tubes are preserved although the axons are ruptured, and spontaneous recovery occurs with excellent return of function. In neurotmesis there is complete disorganization and the nerve may be partially or completely divided; complete recovery never occurs in the absence of surgical intervention.

These three types of injuries may be brought about by either direct violence or traction or a combination of the two. Direct violence may be well localized as at the site of the fracture, whereas traction may cause damage at a remote point from the injury or over a long portion of the nerve. Fractures of the clavicle with direct traction on the brachial plexuses may be given as an excellent example of a traction injury. It is important, and at times difficult, to distinguish

between lesions from these two causes, but one fact is lucid—if the injury is distant to the site of the nerve lesion, a traction type of lesion has occurred.

SITE OF INJURIES

Several large series of cases have been reported in the literature,[2, 4] both as to the site of the fracture and the nerves most commonly damaged. There is, of course, variance in the smaller number of injuries, but most series agree in that fractures of the humerus are most often associated with nerve lesions. In one series of 253 fractures, 210 were fractures of the humerus, 14 radius and ulna combined, 9 radius alone, 7 clavicle, 5 femur, 3 tibia and fibula combined, 2 pelvis, 1 ulna, 1 tibia, and 1 fibula. The majority were simple fractures, totaling 180 against 38 compound and 35 not recorded.

Since the majority were in association with fractures of the humerus, we might further break this down as to location. Of the 210 humeral fractures 138 nerve injuries were associated with fractures of the lower third of the humerus, 52 with the middle third, 9 with the upper third, and 36 not recorded.

It is further of interest to note that 240 nerve injuries associated with fractures were in the upper extremity fractures, whereas only 13 were associated with those of the lower extremity, a ratio of approximately 17:1. Thus, the importance of searching for and recognizing injuries to nerves in association with fractures of the upper extremities cannot be too strongly emphasized.

Next we are interested in what nerves or combinations of nerves are injured. In analyzing reported nerve injuries, we find of the 5 most commonly injured great nerves the radial or musculospiral nerve injured in approximately 58 per cent of reported cases, the ulnar next with 18 per cent, the peroneal with 16 per cent, the median with 6 per cent and the sciatic with 2 per cent. Thus, a combination of fracture of the humerus with radial nerve damage is the most common.

SURGICAL TREATMENT

In considering the surgical approach to peripheral nerve injuries it is well to keep in mind certain anatomic facts which are common to all of the great peripheral nerves. They are surrounded by a connective tissue which is known as the epineurium. This tissue is easily incised with a sharp knife or razor blade. The epineurium holds together bundles of nerves which are held in their respective bundles by the perineurium. This layer of tissue can be split by careful dissection with a sharp pointed knife in a longitudinal direction, but in this step one is likely to damage a number of individual nerve fibers which are held together by the much finer connective tissue known as endoneurium. These three connective tissue coatings should be thought of as the damaged peripheral nerve is approached.

In fresh fractures we may see partial section of a nerve, complete section, and rarely subepineural or endoneural hematomas. If the lesion can be recognized and thus inspected at the time of open reduction or the primary operation, it should be done. A partially sectioned nerve should be examined carefully.

The use of saline neurolysis may make direct surgical attack possible.[1] With a 2 cc. syringe with a no. 26 or 27 needle the nerve is picked up gently and the needle injected cautiously under the epineurium in the direction of the longitudinal fibers. A few drops of saline then slowly injected may separate the epineurium and even some of the nerve bundles. In the partially cut nerve it is well to perform this procedure about 1 cm. above and below the injury. This will make it much easier to identify the lacerated fibers. These can be separated a few millimeters above and below the site of laceration. The lacerated ends then may be carefully cut off and a primary anastomosis accomplished without disturbing the remaining intact longitudinal fibers.

In cases in which the nerve is completely divided the same procedure is carried out. Again the ends should be cut by a transverse incision completely across each nerve end, thus freshening the nerve ends before primary suture is done.

Direct end to end anastomosis can be carried out usually with four sutures placed anteriorly, posteriorly, medially, and laterally through the epineurium. Black silk is probably the material of choice, although fine steel wire is gaining in popularity. Care should be taken not to rotate either of the ends of the nerve so that in suturing lateral end fits to lateral end, medial to medial, and so forth. Rotation will disturb regeneration as well as promote neuromas from malredistribution of the fibers.

These same methods of course can be carried out in late cases in which neuromas have formed.

Lastly, the subepineural or endoneural hematoma may be treated with saline neurolysis. Splitting of the epineurium may suffice to wash out a fresh clot which, if left, would only promote a neuroma and further nerve damage.

After primary suture one always should be sure the nerve is not left under tension and that all surrounding bleeding, which can promote cicatrix formation, has been controlled. Extensive mobilization, transposition, or mobilization of a joint may solve the problem of reducing nerve tension. If there is great danger of cicatrix formation, the nerve may be trans-

posed to different muscle or fascia planes that have not been subjected to trauma.

In cases of fresh fracture in which closed methods are used it is again important to recognize possible nerve injuries for which the physician can be blamed at a later date if manipulative therapy is used and the preexisting nerve lesion is not recognized and pointed out to the patient or his family. When one can be reasonably sure there has been neurotmesis, one is justified in immediate exploration. If doubt exists, the site of the lesion should be marked, the nerve dysfunction recorded, and surgical intervention considered when a sufficient time has elapsed for spontaneous regeneration to manifest itself. Usual rule of thumb is to allow for 1 mm. of regeneration per day. The very young patient may exceed this rate whereas the aged patient may require more watchful waiting.

SUMMARY

Three important factors in relation to nerve injuries associated with fresh fractures have been presented:

1. Determination of the type and amount of damage to the associated nerve injury.

2. Recognition of the most common sites of nerve injury associated with fractures.

3. Consideration of the surgical approach and methods most applicable to the type of surgical nerve injury.

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AMERICAN ACADEMY OF GENERAL PRACTICE

The Eighth Annual American Academy of General Practice Scientific Assembly will convene March 19-22 in Washington, D. C. During the four-day program, the doctors will hear 26 speakers discuss subjects ranging from cardiac emergencies to primary wound repair. There will be more than 60 scientific exhibits and 250 technical exhibits. The program will include two live clinics, a symposium on obstetrics, and an address by Surgeon General Leonard Scheele, Department of Health, Education, and Welfare.

CASE REPORTS

Foreign Body Granuloma of the Urinary Bladder Mucosa

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ALTHOUGH the formation of calculi around retained foreign bodies in the urinary bladder is a frequent occurrence, the growth of foreign body granulomas is very uncommon. No mention is made of them in the classifications of bladder tumors in any of the standard texts on urology and pathology, and the current literature has been reviewed back to 1940 without evidence of a single case report of this tumor. To the best of our knowledge this then represents the first recorded foreign body granuloma of the urinary bladder in recent years. Since the symptoms and gross appearance of the growth were similar to those of the more commonplace tumors, it is believed that presentation of the case is merited.

LT. COL. EDWARD GARTMAN *is chief of the Urology Section, U. S. Army Hospital, Fort Sill.*

CASE REPORT

A 44 year old housewife was admitted to the Urologic Section November 4, 1954, with a history of having had one episode of gross hematuria October 19, followed by a

few blood flecks in the urine for a day or so after. There were no other urinary difficulties.

She had had two full term pregnancies. In 1944 a vaginal repair and uterine suspension was done; in 1949 she had had a vaginal hysterectomy, which was followed in 1952 by a vaginal prolapse. On April 5, 1954 a gynecologist did a colpoplasty, a colpoperineoplasty, and an abdominal suspension of the prolapsed vagina. The operative note on this procedure has been reviewed: the bladder was never opened, cotton sutures, and ligatures were used, but identification of the usual landmarks was difficult because of the scarring of previous surgery. Convalescence from this latest procedure was uneventful, and the patient was discharged April 17.

Physical examination revealed a well developed, well nourished, middle aged, white woman in excellent condition. Aside from a well healed transverse suprapubic surgical scar, physical examination disclosed no abnormalities. The hemogram was within physiologic limits, a urinalysis (catheterized specimen) contained only 8 to 10 white blood cells per high powered field, and the blood urea nitrogen level was 18 mg. per 100 cc. of blood. An intravenous pyelogram was made, disclosing prompt function bilaterally, normal pelvic silhouettes, and prompt drainage; the cystogram showed no gross defects in the bladder contour. The patient was studied by cystoscopy November 3 under topical anesthesia. On the floor of the bladder, about 5 cm. above the right ureteral orifice, was a pedunculated tumor roughly 3 by 3 by 2 cm. Wrapped around the base was what appeared to be a strand of cotton suture. A thin swirl of blood seemed to be coming from the right ureteral orifice. The intravenous pyelogram was reexamined and a suggested filling defect in the upper third of the right ureter was seen. A right uretero-pyelogram was made, and the presence of the filling defect was not substantiated. Washings from both the bladder and the right ureter contained no tumor cells. No biopsy specimen was taken for fear of enmeshing the forceps in a buried loop of the piece of cotton. A tentative diagnosis of foreign body granuloma of the bladder was made. Had the urologist been aware of the rarity of this lesion as he is now, it is likely that this diagnosis might not have been considered.

A segmental resection of the bladder was done under spinal anesthesia November 12. The vagina was found partly anchored to the bladder serosa, but it was possible to mobilize the entire right side of the bladder without taking down the suspension. The suture did not go through the bladder but was buried in the mucosa and muscularis, the knot being tied within the bladder cavity. It could not be determined whether the cotton had been used as a tie or suture. A wide segment of full thickness bladder wall was excised and the bladder closed over a no. 18 F Pezzar catheter.

Convalescence was without incident. The Pezzar catheter fell out inadvertently the morning of the sixth postoperative day, but the fistula closed immediately and the patient was discharged on her eighth postoperative day. She was reexamined by cystoscope January 14, 1955; no evidence of the tumor was found and the site of resection appeared well healed.

Pathology.—Grossly, the specimen was a small segment of urinary bladder on which a small amount of grayish-tan, friable tissue was present. In this growth a cotton suture was identifiable.

Microsections showed the growth to have an edematous matrix in which were numerous normal appearing fibroblasts and many newly formed blood vessels filled with erythrocytes. This granulation tissue was infiltrated with lymphocytes, plasma cells, and polymorphonuclear leukocytes. Russell bodies and some foreign body type giant cells were scattered throughout the matrix (fig. 1a). The surface of the granulomatous outgrowths was partially covered with fibrin, and near the bases some normal appearing transitional epithelium was identified. Normal fibrous connective tissue constituted the bases of the growths.

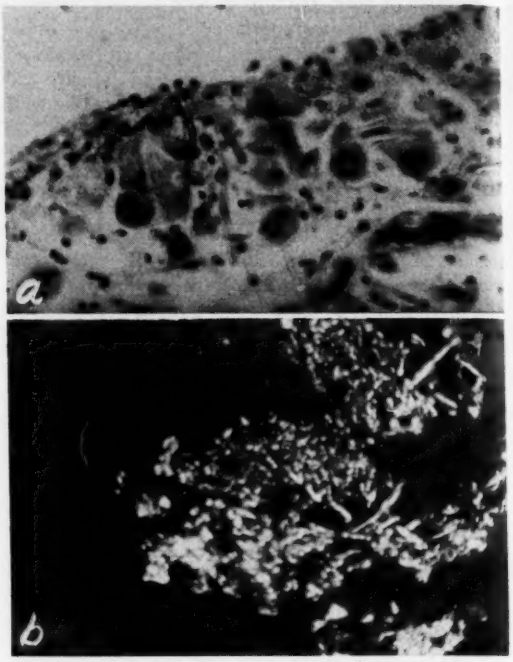

Fig. 1. a. Section of granuloma containing foreign body giant cells. x 40.

b. Section of granuloma under polarized light showing the suture material as bright bodies. x 35.

The foreign material was seen as clusters of cotton fibers, and these were visible under polarized light (fig. 1b). About the strands of cotton there was fibrin which contained groups of erythrocytes.

On this basis, a diagnosis of a benign foreign body granuloma was made.

SUMMARY

A foreign body granuloma of the urinary bladder caused by the presence of a cotton suture in the bladder wall has been presented. Although this is apparently the first tumor of this nature reported, at least in recent years, the possibility of such an occurrence should be considered henceforth in the differential diagnosis of bladder tumors.

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MEDICAL NEWS

★ Coming Meetings

Texas Medical Association, Galveston, April 21-25, 1956. Dr. J. Layton Cochran, San Antonio, Pres.; Mr. C. Lincoln Williston, 1801 North Lamar Blvd., Austin, Executive Secy.

American Medical Association. Dr. Elmer Hess, Erie, Pa., Pres.; Dr. George F. Lull, 535 North Dearborn, Chicago 10, Secy.

National and Regional

American Academy of Allergy, St. Louis, Feb. 6-8, 1956. Dr. Stanley F. Hampton, St. Louis, Pres.; Dr. Frances C. Lowell, 65 E. Newton, Boston, Secy.

American Academy of Dermatology and Syphilology. Dr. Arthur C. Curtis, Ann Arbor, Pres.; Dr. James R. Webster, 55 E. Washington, Chicago 2, Secy.

American Academy of General Practice, Washington, D. C., March 18-23, 1956. Dr. John R. Fowler, Barre, Mass., Pres.; Mr. Mac F. Cahal, 406 W. 34th St., Kansas City 2, Executive Secy.

American Academy of Obstetrics and Gynecology, Chicago, Nov. 7-9, 1956. Dr. Ralph E. Campbell, Madison, Wisc., Pres.; Dr. C. Paul Hodgkinson, 116 S. Michigan Blvd., Chicago 3, Secy.

American Academy of Ophthalmology and Otolaryngology. Dr. Algernon B. Reese, New York, Pres.; Dr. W. L. Benedict, 100 First Ave. Bldg., Rochester, Minn., Secy.

American Academy of Pediatrics, New York, Oct. 8-11, 1956. Dr. Harry Bawkin, New York, Pres.; Dr. E. H. Christopherson, 610 Church, Evanston, Ill , Secy.

American Association for Thoracic Surgery, Miami Beach, Fla., May 7-9, 1956. Dr. Richard H. Meade, Grand Rapids, Mich., Pres.; Dr. Paul C. Samson, 3959 Happy Valley Rd., Lafayette, Calif., Secy.

American Association of Genito-Urinary Surgeons, Oyster Harbors, Mass., June 4-6, 1956. Dr. Norris J. Heckel, Chicago, Pres.; Dr. John A. Taylor, 2 E. 45th St., New York 22, Secy.

American Association of Obstetricians, Gynecologists and Abdominal Surgeons. Dr. Thaddeus L. Montgomery, Philadelphia, Pres.; Dr. F. R. Lock, Bowman Gray School, Winston-Salem, N. C., Secy.

American Cancer Society. Dr. Guy Aud, Louisville, Ky., Pres.; Mr. M. R. Runyon, 47 Beaver, New York, Executive Vice-Pres.

American College of Allergists, New York, April 15-20, 1956. Dr. Lawrence J. Halpin, Cedar Rapids, Iowa, Pres.; Dr. Fred W. Wittich, 401 La Salle Medical Bldg., Minneapolis 2, Secy.

American College of Chest Physicians, Chicago, June 7-10, 1956. Dr. James H. Stygall, Indianapolis, Pres.; Mr. Murray Kornfeld, 112 E. Chestnut, Chicago 11, Executive Secy.

American College of Physicians, Los Angeles, April 16-20, 1956. Dr. George F. Strong, Vancouver 1, B. C., Pres.; Mr. E. R. Loveland, 4200 Pine, Philadelphia 4, Secy.

American College of Radiology, Chicago, Feb. 10-11, 1956. Dr. Warren W. Furey, Chicago, Pres.; Mr. W. C. Stronach, 20 N. Wacker Dr., Chicago 6, Executive Secy.

American College of Surgeons. Dr. Alfred Blalock, Baltimore, Pres.; Dr. Michael L. Mason, 40 E. Erie, Chicago 11, Secy.

American Congress on Obstetrics and Gynecology. Dr. R. Gordon Douglas, 116 S. Michigan Ave., Chicago 3, Chm.

American Congress of Physical Medicine and Rehabilitation, Atlantic City, N. J., Sept. 10-14, 1956. Dr. Gordon M. Martin, Rochester, Minn., Pres.; Dr. Frances Baker, 1 Tilton Ave., San Mateo, Calif., Secy.

American Dermatological Association, Santa Barbara, Calif., June 18-21, 1956. Dr. V. Pardo-Castello, Havana, Cuba, Pres.; Dr. J. Lamar Callaway, Duke Hospital, Durham, N. C., Secy.

American Gastro-Enterological Association, Atlantic City, N. J., April 27-28, 1956. Dr. Robert Elman, St. Louis, Pres.; Dr. H. Marvin Pollard, University Hospital, Ann Arbor, Mich., Secy.

American Gynecological Society, Washington, D. C., May 21-23, 1956. Dr. Isidor C. Rubin, New York, Pres.; Dr. John I. Brewer, 104 S. Michigan Ave., Chicago, Secy.

American Heart Association. Dr. E. Cowles Andrus, Baltimore, Pres.; Mr. Irving Hexter, 44 E. 23rd, New York 10, Secy.

American Hospital Association, Chicago, Sept. 17-20, 1956. Mr. Ray E. Brown, Chicago, Pres.; Dr. Edwin L. Crosby, 18 E. Division, Chicago, Executive Director.

American Laryngological, Rhinological, and Otological Society, Montreal, Canada, May 15-17, 1956. Dr. Dean M. Lierle, Iowa City, Pres.; Dr. C. S. Nash, 277 Alexander, Rochester 7, N. Y., Secy.

American Neurological Association, Atlantic City, N. J., June 18-20, 1956. Dr. J. M. Neilson, Los Angeles, Pres.; Dr. Charles Rupp, 133 S. 36th, Philadelphia 4, Secy.

American Ophthalmological Society, Hot Springs, Va., May 31-June 2, 1956. Dr. Alan C. Woods, Baltimore, Pres.; Dr. M. C. Wheeler, 30 W. 59th, New York 19, Secy.

American Orthopedic Association, Banff, Canada, June 20-23, 1956. Dr. Paul C. Colonna, Philadelphia 4, Pres.; Dr. George O. Eaton, 4 E. Madison, Baltimore 2, Secy.

American Pediatric Society, Buck Hill Falls, Pa., May 6-11, 1956. Dr. Allan M. Butler, Boston, Pres.; Dr. A. C. McGuinness, 237 Medical Laboratory, University of Pennsylvania, Philadelphia 46, Secy.

American Proctologic Society, Detroit, June 6-9, 1956. Dr. Stuart T. Ross, Hempstead, N. Y., Pres.; Dr. Karl Zimmerman, 3500 Fifth Ave., Pittsburgh 13, Secy.

American Psychiatric Association, Chicago, April 30-May 4, 1956. Dr. R. Finley Gayle, Richmond, Va., Pres.; Dr. William Malamud, 80 E. Concord, Boston 18, Secy.

American Public Health Association, Atlantic City, Nov. 12-16, 1956. Dr. Ira V. Hiscock, New Haven, Conn., Pres.; Dr. R. M. Atwater, 1790 Broadway, New York 19, Executive Secy.

American Society of Anesthesiologists, Kansas City, Mo., Oct. 8-12, 1956. Dr. Scott M. Smith, Salt Lake City, Pres.; Dr. J. E. Remlinger, Jr., 188 W. Randolph, Chicago, Secy.

American Society of Clinical Pathologists, Chicago, Oct. 7-12, 1956. Dr. Emma S. Moss, New Orleans, Pres.; Dr. Clyde G. Culbertson, 1040 W. Michigan, Indianapolis 6, Secy.

American Surgical Association, W. Sulphur Springs, W. Va., April 11-13, 1956. Dr. Alfred Blalock, Baltimore, Pres.; Dr. R. Kennedy Gilchrist, 59 East Madison, Chicago 3, Secy.

American Urological Association, Boston, May 28-31, 1956. Dr. George C. Prather, Brookline, Pres.; Dr. Samuel L. Raines, 188 S. Bellevue Blvd., Memphis, Tenn., Secy.

Association of American Physicians and Surgeons, Annual Meeting, Columbus, Ohio, April 5-7, 1956. Dr. James L. Doenges, Anderson, Ind., Pres.; Mr. Harry E. Northam, 185 N. Wabash Ave., Chicago 1, Executive Secy.

International College of Surgeons, U. S. Chapter. Dr. Arnold S. Jackson, Madison, Wisc., Pres.; Dr. Karl Meyer, 1516 Lake Shore Dr., Chicago, Secy.

National Tuberculosis Association, New York, May 21-25, 1956. Dr. Edward T. Fagan, Brooklyn, Pres.; Mrs. Morrell DeReign, 1790 Broadway, New York 19, Secy.

Radiological Society of North America. Dr. Tom B. Bond, Fort Worth, Pres.; Dr. D. S. Childs, 713 E. Genesee, Syracuse 2, N. Y., Secy.

Southern Medical Association, Washington, D. C., Nov. 12-15, 1956. Dr. Raymond McKenzie, Baltimore, Pres.; Mr. V. O. Foster, 1020 Empire Bldg., Birmingham 3, Secy.

Southern Psychiatric Association. Dr. John D. Trawick, Louisville, Pres.; Dr. Joseph L. Knapp, 210 N. Westmoreland, Dallas, Secy.

Southern Surgical Association. Dr. Carrington Williams, Richmond, Pres.; Dr. George Finney, 2947 St. Paul, Baltimore, Secy.

Southwest Allergy Forum. Dr. Henry D. Ogden, New Orleans, Pres.; Dr. Stanley Cohen, 1441 Delachaise, New Orleans, Secy.

Southwest Regional Cancer Conference. Dr. John L. Wallace, Box 1719, Fort Worth, Chm.

Southwestern Medical Association. Dr. John A. Dettweiler, Albuquerque, N. Mex., Pres.; Dr. Russell L. Deter, El Paso, Secy.

Southwestern Surgical Congress, Tucson, Ariz., April 16-18, 1956. Dr. C. R. Rountree, Oklahoma City, Pres.; Dr. C. M. O'Leary, 207 Plaza Court Bldg., Oklahoma City, Secy.

Tri-State Medical Society. Dr. William B. Harrell, Texarkana, Pres.; Dr. Karlton Kemp, 408 Hazel, Texarkana, Ark., Secy.

United States-Mexico Border Public Health Association. Mr. Richard F. Poston, San Francisco, Pres.; Dr. Sidney B. Clark, 314 U. S. Court House, El Paso, Secy.

State

Private Clinics and Hospitals Association of Texas, Dallas, December, 1956. Dr. J. P. Anderson, Brady, Pres.; Mr. C. H. Rugeley, Wharton, Secy.

Texas Academy of General Practice, Houston, Sept. 16-19, 1956. Dr. J. D. Murphy, Fort Worth, Pres.; Mr. Donald C. Jackson, 308 W. 15th, Austin, Executive Secy.

Texas Academy of Internal Medicine, Dallas, December, 1956. Dr. DeWitt Neighbors, Fort Worth, Pres.; Dr. Hugo Engelhardt, 1216 Main, Houston, Secy. Meetings restricted to members.

Texas Air-Medics Association, Galveston, April 22-23, 1956. Dr. W. A. Ostendorf, Fort Worth, Pres.; Dr. C. F. Miller, P. O. Box 1338, Waco, Secy.

Texas Association of Blood Banks. Dr. O. J. Wollenman, Jr., Fort Worth, Pres.; Miss Marjorie Saunders, 3500 Gaston Ave., Dallas, Secy.

Texas Association of Obstetricians and Gynecologists, Dallas, Feb. 18, 1956. Dr. John Delany, Galveston, Pres.; Dr. Oran V. Prejean, 4317 Oak Lawn. Dallas, Secy.

Texas Chapter, American College of Chest Physicians, Galveston, April 22, 1956. Dr. Samuel Topperman, Tyler, Pres.; Dr. J. O. Armstrong, 3810 Swiss Ave., Dallas, Secy.

Texas Club of Internists. Dr. Charles Barrier, Fort Worth, Pres.; Dr. Charles Darnall, Capital National Bank Bldg., Austin, Secy.

Texas Dermatological Society. Dr. E. B. Ritchie, Galveston, Pres.; Dr. Thomas L. Shields, 1216 Pennsylvania Ave., Fort Worth, Secy.

Texas Diabetes Association, Galveston, April 22, 1956. Dr. Mavis P. Kelsey, Houston, Pres.; Dr. Hugo Engelhardt, P. O. Box 2180, Houston, Secy.

Texas Division, American Cancer Society. Mr. Leonard M. Gunderson, Amarillo, Pres.; Mr. Curt W. Reimann, 1609 Colorado, Austin, Acting Executive Director.

Texas Geriatrics Society. Dr. Donald G. Kilgore, Dallas, Pres.; Dr. J. O. S. Holt, Jr., 3707 Gaston Ave., Dallas, Secy.

Texas Heart Association, Galveston, April 22, 1956. Dr. Kleberg Eckhardt, Corpus Christi, Pres.; Mr. Edgar M. Brown, 404 Jesse H. Jones Library Bldg., Texas Medical Center, Houston 25, Executive Director.

Texas Hospital Association, Dallas, April 3-5, 1956. Mr. Boone Powell, Dallas, Pres.; Mrs. Ruth Barnhart, 2210 Main, Dallas, Secy.

Texas Neuropsychiatric Association, Galveston, April 23, 1956. Dr. Stephen Weisz, Dallas, Pres.; Dr. Bruce H. Beard, 1519 Pennsylvania, Fort Worth, Secy.

Texas Orthopedic Association, Galveston, April 23, 1956. Dr. Paul Williams, Dallas, Pres.; Dr. Margaret Watkins, 3629 Fairmount, Dallas, Secy.

Texas Pediatric Society, Oct. 19-20, 1956. Dr. R. J. Blattner, Houston, Pres.; Dr. James N. Walker, 5216 W. Freeway, Fort Worth, Secy.

Texas Proctologic Society, Galveston, February 18, 1956. Dr. John McGivney, Galveston, Pres. and Secy.

Texas Public Health Association, Fort Worth, Feb. 26-29, 1956. Mr. Ed Riedel, Austin, Pres.; Mr. H. E. Drumwright, City Health Department, Dallas, Executive Secy.

Texas Radiological Society, Corpus Christi, January, 1956. Dr. J. R. Riley, Corpus Christi, Pres.; Dr. J. E. Miller, 6407 Forest Lane, Dallas, Secy.

Texas Railway and Traumatic Surgical Association, Galveston, April 23, 1956. Dr. A. O. Singleton, Jr., Galveston, Pres.; Dr. W. D. Marrs, 306 Broadway, Fort Worth, Secy.

Texas Rheumatism Association. Dr. Frank F. Parrish, Jr., Houston, Pres.; Dr. Warren W. Moorman, 901 W. Leuda, Fort Worth, Secy.

Texas Society for Mental Health, San Antonio, March 1-3, 1956. Dr. Abe Hauser, Houston, Pres.; Mr. John Lane, 2510 San Antonio, Austin, Acting Executive Secy.

Texas Society of Anesthesiologists, Galveston, April 22, 1956. Dr. Joe B. Wood, Dallas, Pres.; Dr. Milton M. Rosenzweig, 200 Wildwood Dr. E., San Antonio, Secy.

Texas Society of Gastroenterologists and Proctologists, Galveston, April 23, 1956. Dr. W. T. Arnold, Houston, Pres.; Dr. O. P. Griffin, 1101 Medical Arts Bldg., Fort Worth, Secy.

Texas Society of Ophthalmology and Otolaryngology, Galveston, 1955. Dr. A. E. Jackson, Fort Worth, Pres.; Dr. Gatlin Mitchell, 1604 Medical Arts Bldg., Fort Worth, Secy.

Texas Society of Pathologists, Galveston, April, 1956. Dr. Sidney W. Bohls, Austin, Pres.; Dr. M. H. Grossman, St. Paul Hospital, Dallas, Secy.

Texas Surgical Society, Fort Worth, April 2-3, 1956. Dr. P. I. Nixon, Sr., San Antonio, Pres.; Dr. Albert W. Hartman, 414 Navarro, San Antonio 5, Secy.

Texas Tuberculosis Association, Midland, April 6-7, 1956. Mrs. Joella Terrill Butler, Wichita Falls, Pres.; Miss Pansy Nichols, 2406 Manor Rd., Austin, Executive Secy.

Texas Urological Society, Austin, February 26-27, 1956. Dr. A. J. Ashmore, Corpus Christi, Pres.; Dr. Rex Carter, 1709 San Antonio, Austin, Secy.

District

First District Society, Pecos, Feb. 16, 1956. Dr. Delphin von Briesen, El Paso, Pres.; Dr. W. G. Morrow, Jr., First National Bldg., El Paso, Secy.

Second District Society, Odessa, April 19, 1956. Dr. T. W. Novak, Odessa, Pres.; Dr. Willis T. Carson, 506 North Allegheny, Odessa, Secy.

Third District Society, Plainview, April 11, 1956. Dr. Marvin C. Schlecte, Plainview, Pres.; Dr. William Klingensmith, 215 Fisk Bldg., Amarillo, Secy.

Fourth District Society, San Angelo, 1956. Dr. Joe B. Stephens, Bangs, Pres.; Dr. S. H. Martin, 115 S. Park, San Angelo, Secy.

Fifth and Sixth Districts Society, Corpus Christi, July 6-7, 1956. Dr. E. Jackson Giles, Corpus Christi, Pres.; Dr. Maurice Nast, 1126 3rd, Corpus Christi, Secy.

Seventh District Society, March 10, 1956. Dr. John R. Rainey, Jr., Austin, Pres.; Dr. Leslie C. Colwell, 1410 Brazos, Austin, Secy.

Eighth District Society, Brazoria, 1956. Dr. Carlos Fuste, Alvin, Pres.; Dr. John Childers, Univ. of Texas Medical Branch, Galveston, Secy.

Ninth District Society, Baytown, March 29, 1956. Dr. Joseph T. Dabney, Livingston, Pres.; Dr. Lyman C. Blair, 1212 Rothwell, Houston, Secy.

Tenth District Society. Dr. Taylor Walker, Beaumont, Pres.; Dr. Alan E. Hubner, 590 Center, Beaumont, Secy.

Eleventh District Society. Dr. Porter Bailes, Tyler, Pres.; Dr. Hugh E. Rives, Jacksonville, Secy.

Twelfth District Society, Waco, July 10, 1956. Dr. R. Henry Harrison, Bryan, Pres.; Dr. W. M. Avent, 1716 Colcord, Waco, Secy.

Thirteenth District Society, Wichita Falls, April 4, 1956. Dr. P. M. Kuykendall, Ranger, Pres.; Dr. Robert D. Moreton, 815 Medical Arts Bldg., Fort Worth, Secy.

Fifteenth District Society, Marshall, 1956. Dr. James Harris, Marshall, Pres.; Dr. L. E. Rudedge, Daingerfield, Secy.

Clinics

Dallas Southern Clinical Society, Dallas, March 12-14, 1956. Dr. Alvin Baldwin, Jr., Dallas, Pres.; Miss Helga Boyd, Medical Arts Bldg., Dallas 1, Executive Secy.

International Medical Assembly of Southwest Texas. Dr. John C. Parsons, 1125 Nix Professional Bldg., San Antonio, Secy.

New Orleans Graduate Medical Assembly, New Orleans, Feb. 27-March 1, 1956. Dr. Donovan C. Browne, New Orleans, Pres.; Dr. Maurice E. St. Martin, Room 103, 1430 Tulane Ave., New Orleans 12, Secy.

North Texas-Southern Oklahoma Fall Clinical Conference. Dr. E. C. Bebb, Broad, Wichita Falls, Chm.

Oklahoma City Clinical Society Conference, Oklahoma City, Oct. 22-25, 1956. Miss Alma F. O'Donnell, 512 Medical Arts Bldg., Oklahoma City 2, Executive Secy.

Postgraduate Medical Assembly of South Texas, Houston, July 16-18, 1956. Dr. C. Forrest Jorns, 5644 Lawndale, Houston, Secy.

State Tumor Conference, Wichita Falls, April 4, 1956. Dr. Bailey R. Collins, 925½ Scott, Wichita Falls, Director.

Board Examinations

Texas State Board of Examiners in Basic Sciences. Mrs. Betty Ratcliff, 407 Perry-Brooks Bldg., Austin, Chief Clerk.

Texas State Board of Medical Examiners. Dr. M. H. Crabb, 1714 Medical Arts Bldg., Fort Worth, Secy.

Symposium on Cancer Research

The tenth annual Symposium on Fundamental Cancer Research will be held March 29-31 at the University of Texas M. D. Anderson Hospital and Tumor Institute in Houston.

A panel discussion on "Nucleic Acid Metabolism in Tumors" will be under the direction of Dr. Van R. Potter, professor of oncology at the University of Wisconsin Medical School, Madison. Dr. Darrell Ward, Department of Biochemistry, M. D. Anderson Hospital, is in charge of the reports on recent developments in cancer research. Dr. Grant Taylor, dean of the University of Texas Postgraduate School of Medicine, is general chairman of the symposium.

Out-of-state speakers who will participate in the panel discussion will include Dr. C. P. Barnum, University of Minnesota Medical School, Minneapolis; Dr. G. A. LePage, University of Wisconsin Medical School, Madison; Dr. J. M. Buchanan, Massachusetts Institute of Technology, Cambridge; Dr. Howard E. Skipper, Southern Research Institute, Birmingham; Dr. Walter S. Plaut, University of Wisconsin Madison; Dr. D. Mazia, University of California, Berkeley; Dr. Arnold Welch, Yale University School of Medicine, New Haven; and Dr. Seymour S. Cohen, University of Pennsylvania School of Medicine, Philadelphia.

POSTGRADUATE COURSE

The American Diabetes Association offered its fourth postgraduate course in diabetes and basic metabolic problems late in January in Dallas. A faculty of 58 physicians taught the various courses on pathologic physiology, clinical diabetes, and complications. Dr. Edwin L. Rippy, associate professor of clinical medicine, Southwestern Medical School of the University of Texas, Dallas, directed the course.

PERSONALS

Drs. Gilbert H. Fletcher, Houston, and *Herman C. Sebested,* Fort Worth, were inducted as fellows of the American College of Radiology at a meeting February 10 in Chicago.

Dr. Saul Kit, Houston, has received a grant from the Leukemia Society, Inc., for his research project on leukemia.

Dr. Jack L. Walker, Austin, recently passed the State Bar examination to become the second physician in Texas to be both a doctor and a lawyer.

Dr. John C. Finerty, Galveston, is the new president of the Texas Academy of Science.

Dr. J. L. Goforth, Dallas, is the new president-elect of the American Society of Clinical Pathologists.

Dr. John G. Young, Dallas, will be a guest lecturer at the Alumni Postgraduate Convention, March 4-8 in Los Angeles.

Drs. Oran V. Prejean, Dallas, and *Emerson K. Blewett,* Austin, have been named chairman and vice-chairman, respectively, of the Texas section of the American Academy of Obstetrics and Gynecology.

Dr. Sidney P. Cooper, Galveston, was graduated from the Seventh Interagency Institute for Federal Hospital Administrators early in November.

Dr. O. H. Box, Jr., Bonham, has been appointed chief medical officer of the Bonham Veterans Administration Center.

Dr. Henry Renfert, Jr., Austin, addressed the Eighth Annual Hospital Pharmacy Seminar February 12 in Austin.

Drs. Wallace H. Bassett and *W. A. Criswell,* Dallas, received 30 and 10 year service pins, respectively, at the Baylor Hospital's fifth annual service awards dinner in October.

Mrs. J. E. Kunath, mother of *Dr. Carl A. Kunath,* San Angelo, died in McAllen October 17, at the home of her daughter.

Dr. W. D. Black, Barstow, was honoree at a family reunion in celebration of his eightieth birthday October 22.

Dr. and Mrs. A. L. Thomas, Ennis, celebrated their golden wedding anniversary October 30 at a tea at the home of one of their daughters.

Dr. John Wyatt Herndon, Jr., Houston, and Miss Roblyn Enid Markham were married October 15 in Waco.

A girl was born to *Drs. and Mrs. George L. Walmsley,* September 25, in Big Spring. New parents of boys are *Dr. and Mrs. John R. Brown,* November 20, in Houston; and *Dr. and Mrs. G. H. C. Herrmann,* November 19 in San Antonio.

STATE TUMOR CONFERENCE

The fifth annual State Tumor Conference will be held April 4 in Wichita Falls, and the program will be as follows:

Importance and Aims of Wichita County Medical Society Tumor Clinic—B. R. Collins, Wichita Falls.

Carcinoma as Lesion of Multicentric Origin—Dr. Edward A. Gall, University of Cincinnati College of Medicine, Cincinnati, Ohio.

Role of Radiotherapy in Management of Breast Cancer—Dr. William B. Seaman, Washington University School of Medicine, St. Louis.

Observations on Histochemistry of Thyroiditis—Dr. Champ Lyons, Medical College of Alabama, Birmingham.

Clinical and Pathologic Manifestations of Malignant Lymphoma—Dr. Gall.

Clinical Evaluation of Compartmental Fluid Shifts—Dr. Lyons.

Diagnosis and Treatment of Neuroblastoma—Dr. Seaman.

In addition to the scientific program, there will be a combined luncheon meeting with the Thirteenth District Medical Society, at which the speaker will be Dr. Milford O. Rouse, Dallas, President-Elect of the Texas Medical Association.

Texas Radiological Society

The Texas Radiological Society met January 20 and 21 in Fort Worth, and elected Dr. J. R. Riley, Corpus Christi, president. Other officers who will serve with him are Dr. T. G. Russell, Houston, president-elect; Dr. R. F. Wertz, Amarillo, first vice-president; Dr. H. C. Sehested, Fort Worth, second vice-president; and Dr. J. E. Miller, Dallas, secretary-treasurer.

Approximately 136 members and guests attended the meeting. Guest speakers included Drs. Robert J. Reeves, Durham, N. C.; Franz J. Buschke, Seattle; I. Meschan, Winston-Salem; Arthur Finkelstein, Philadelphia; and George Jacobson, Los Angeles.

Entertainment for the ladies included a coffee and a Dutch treat luncheon.

American Goiter Association

The American Goiter Association will meet May 3-5 in Chicago. The program will consist of papers and discussions dealing with the physiology and diseases of the thyroid gland.

State Board of Medical Examiners

Dr. David S. Stayer, Dallas, has been appointed to succeed Dr. Wendel A. Stiles, Dallas, on the Texas State Board of Medical Examiners. The appointment, following the resignation of Dr. Stiles, is for a term to expire April 13, 1957.

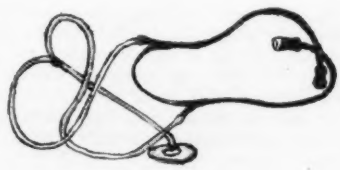
AMERICAN COLLEGE OF SURGEONS

A two-day program on practical surgical problems will be presented at the sectional meeting of the American College of Surgeons in Little Rock, Ark., March 12 and 13. Subjects to be considered include handling of mass casualties, surgical emergencies of the newborn, four symposiums —the acute abdomen, cancer, surgery of the aged, and trauma, and panel discussions on fluid balance and biliary tract surgery.

Dr. Truman G. Blocker, Jr., Galveston, will speak on "Sorting and Treatment of Casualties in a Major Disaster" and "Reconstruction of the Severely Injured Hand." Another Texan, Dr. Ben J. Wilson, Dallas, will be a member of the panel on biliary tract surgery.

Rural Health Conference

The eleventh annual Conference on Rural Health will be held March 8-10 in Portland, Ore. It is sponsored by the Council on Rural Health of the American Medical Association.



Texas Society for Mental Health

Richard P. Swigart, executive director of the National Association for Mental Health, and George Nevin, the association's fund-raising director, will be guests at the March 1-3 meeting in San Antonio of the Texas Society for Mental Health. Also on the program will be Mrs. Oveta Culp Hobby, former United States secretary of health, education, and welfare.

Two general sessions on Friday, March 2, will be devoted to discussions on "Taking Mental Health Into the Community" and "Meeting the Challenge of Mental Illness." The Hogg Foundation Award for outstanding work in the field of mental health will be presented during the meeting.

American Academy of Obstetrics And Gynecology, District Seven

The fourth annual interim meeting of the American Academy of Obstetrics and Gynecology, District 7, will be held March 9 and 10 in Memphis, Tenn. The program will consist of scientific papers, case reports, several short papers, and luncheon round-table discussions.

M. D. Anderson Hospital Wins Award

The University of Texas M. D. Anderson Hospital and Tumor Institute is a national award winner for the interior design of its new building. *Institutions* magazine sponsored the award, one of 11 in the nation, and a panel of five experts judged the contest.

DALLAS SOUTHERN CLINICAL SOCIETY

The Dallas Southern Clinical Society will have 18 honor guests at its spring clinical conference March 12-14. They will be Drs. Franz Altman, New York, and Paul J. Moses, San Francisco, otolaryngology; Walter Bauer, Boston, internal medicine; Granville A. Bennett, Chicago, pathology; Richard B. Cattell, Boston, and James D. Rives, New Orleans, surgery; William J. Dieckmann, Chicago, and Thaddeus L. Montgomery, Philadelphia, obstetrics and gynecology; Trygve Gunderson, Boston, and Jack S. Guyton, Detroit, ophthalmology; Samuel A. Levine, Boston, cardiology; Victor Marshall, New York, urology; Ralph M. Patterson, Columbus, psychiatry; H. M. Pollard, Ann Arbor, gastroenterology; Laurence L. Robbins, Boston, radiology; Robert A. Scarborough, San Francisco, proctology; Lawson Wilkins, Baltimore, pediatrics; and Philip D. Wilson, Sr., New York, orthopedic surgery.

MILITARY MEDICINE

A two-day conference on military medicine and care of mass casualties was held at the Air Force School of Aviation Medicine in San Antonio in mid-November, and about 60 physicians attended. The symposium was sponsored by the Defense Department as part of the program of the medical education for national defense committee, headed by Stanley W. Olson, dean of the Baylor University College of Medicine, Houston.

Southwestern Medical Association

Dr. Celso C. Stapp, El Paso, was named president-elect of the Southwestern Medical Association at its meeting November 17 in Phoenix, Ariz. Dr. John A. Dettweiller, Albuquerque, N. Mex., was installed as president. Elected to serve with him were Dr. E. W. Lander, Roswell, N. Mex., vice-president; and Dr. Russell L. Deter, El Paso, secretary.

American Association of Blood Banks

The site of the ninth annual meeting of the American Association of Blood Banks, previously scheduled for Cincinnati, Ohio, November 4-7, has been changed. The meeting will be held September 3-5 in Boston.

TEMPLE POSTGRADUATE CONFERENCE

The Temple Division of the University of Texas Postgraduate School of Medicine will offer the Fourth Scott, Sherwood, and Brindley Foundation Postgraduate Conference in Medicine and Surgery March 5-7 in Temple. The morning activities will make available the general clinic facilities, and in the afternoon there will be symposiums, clinicopathologic conferences, round table discussions, and lectures. Complete programs and advance registration forms may be obtained from Dr. G. V. Brindley, Assistant Dean, Temple Division, University of Texas Postgraduate School of Medicine, Temple.

HOUSTON NEUROLOGICAL SOCIETY

The Fourth Annual Scientific Session of the Houston Neurological Society will be held March 16-17 in Houston. The first day will be devoted to a symposium on "Brain Mechanisms and Drug Action," with Dr. Robert Livingston, Dr. Harold E. Himwich, Dr. Amedeo S. Marrazzi, Dr. Eva King Killam, Dr. Joseph V. Brady, and Dr. Ralph W. Gerard as participants. The second day will consist of clinical and basic science papers on neurology and neurosurgery. Dr. Claude Pollard, Secretary, Houston Neurological Society, Hermann Professional Building, Houston, is in charge of registration.

Physicians and Their Estates

One out of eight of the physicians who died between 1940 and 1953 was in debt at the time of death. This fact, and others relating to physicians and their estates, was revealed by the Hartford County (Connecticut) Medical Society in a recent study of 144 obituaries of local physicians and the probate cases involving their estates. Of the estates studied, one out of three left net assets of less than $10,000. Only one doctor in eight survived his wife. At the age of 40 to 50, doctors die twice as fast as the general population, and in the 60 to 70 bracket, the doctors' death rate was 50 per cent higher than the insurance table. Expenses of settlement of the estates studied ranged from a minimum of 13 per cent to as much as one-third, and one out of three physicians left no will.

STATISTICAL REPORT

The report of the Memorial Library of the Texas Medical Association for 1955 is encouraging as shown by the statistics which follow. The staff hopes, however, that by next year the Library will be servicing all members of the Association.

REQUESTS

	1954	1955
References requests	2,104	2,313
Bibliographies compiled	44	70
Films shown	570	684
Tape recordings	58	101
Telephone broadcasts	20	25
Total	2,796	3,193

CIRCULATION OF MATERIAL

	1954	1955
Reprints	7,215	9,384
Journals	5,410	6,304
Books	864	1,154
Bound journals	473	738
Total	13,962	17,580

FILMS

The Library has received 14 films on long term loan and has purchased 8 films, making a total of 138 films in the Library as of December 31, 1955.

BINDING

The Library has had 1,048 volumes bound during 1955.

GIFTS

	1954	1955
Journals (single issues)	12,454	12,312
Bound journals	811	416
Books	372	858
Total	13,637	13,686

The following physicians have made a contribution in memory of a deceased member: Dr. J. M. Coleman, Austin, gave $100 to the Endowment Fund, and Dr. J. T. Billups, Dr. D. L. Curb, and Dr. Denton Kerr, all of Houston, and Dr. Robert M. Tenery, Waxahachie, contributed to the Memorial Fund.

The Woman's Auxiliary again has provided the Library with funds for the purchase of back issues to complete some of its holdings, and it also has purchased a film for the film library.

The Travis County Woman's Auxiliary subscribed to *Today's Health* for the Library for one year.

Dr. and Mrs. Joseph H. McCracken, Jr., Dallas, presented the Library with old books and instruments, and Dr. and Mrs. H. H. Gallatin, Kerrville, also donated some old books and instruments.

USE OF LIBRARY

There are 43 counties in the state with physicians that have never used the facilities of the Library, as well as 15 counties without physicians.

Counties Without Physicians

Armstrong	King	Oldham
Borden	Kenedy	Rains
Carson	Kent	Roberts
Glasscock	Loving	Stonewall
Irion	McMullen	Zapata

Counties with Physicians Not Using Library

County	Physicians	County	Physicians
Andrews	2	Madison	4
Austin	10	Marion	3
Bailey	2	Martin	2
Blanco	2	Mason	3
Briscoe	1	Menard	1
Comanche	3	Motley	2
Crane	2	Polk	9
Delta	3	Presidio	4
Donley	3	Real	1
Duval	3	Sabine	1
Foard	1	San Jacinto	1
Goliad	1	San Saba	3
Grimes	6	Sherman	1
Hansford	2	Star	2
Hartley	4	Stephens	7
Hockley	7	Sterling	1
Hood	1	Sutton	1
Hudspeth	1	Throckmorton	1
LaSalle	2	Upton	4
Llano	3	Waller	2
Limestone	9	Yoakum	3
Lipscomb	1		

Contributions to the Library

Grateful acknowledgment is made by the Texas Medical Association Memorial Library for the following recent gifts:

Mrs. F. F. Kirby, Waco, 31 books.
Dr. Carey Legett, Jr., Austin, 259 journals.
Dr. H. W. Newman, Austin, 107 books, 86 journals.
Dr. Morris Polsky, Austin, 1 journal, 1 book.
Dr. D. R. Womack, Austin, 16 journals.

TAPE RECORDINGS FOR LOAN

The following Audio-Digest tapes were added to the audio-visual library in December, 1955.

No. 22 Davis, Herbert, *Cystic Diseases of the Breast.*
Grimes, Orville F., *Surgical Considerations in Gastric Polyposis.*
No. 23 Seldin, Donald W., *Management of Congestive Heart Failure.*

Luetscher, John A., Jr., *Problems of Electrolyte and Water Balance in the Nephrotic Syndrome.*
Sodeman, William A., *Clinical Problems of Chronic Diarrhea.*

No. 24 Welt, Louis G., *Renal Factors in Regulation of Electrolyte Balance.*
Panel, *The Hyponatremic Syndrome.*
Danowski, T. S., *The Problem of Hypokalemia.*

No. 25 Rosenow, Edward C., Jr., *Differential Diagnosis of Chest Pain.*
Rantz, Lowell, *Widespread Use of Antibiotics and Its Consequences.*

No. 26 Poth, Edgar J., *Esophageal Bleeding and Portal Hypertension.*
Farris, Jack C., *Total Gastrectomy.*

No. 27 Burch, George E., *Cardiology for the General Practitioner.*

No. 28 Brazil, Percy M., *Ergotamine Tolerance in Patients with Migraine.*
Doshay, Lewis J., *Management of Parkinsonism by the General Practitioner.*
Brickner, Richard M., *Procedures for Relieving New Phenomena in Multiple Sclerosis.*

No. 29 Dubose, Rene J., *Are We Any Closer to Defeating Tuberculosis?*

No. 30 Horn and Hammond, *The Human Smoking Problem.*
Myerson, Mervin C., *The Laryngologist Looks at Cigarettes.*

No. 31 Panel, *Acne Scarring.*

Recent Publications By Texas Physicians

Following is a continuation of recent articles published by Texas physicians and available at the Memorial Library of the Texas Medical Association. Articles appearing in the *Texas State Journal of Medicine* are not included. The Library would appreciate having two reprints of articles published in the past six months by Texas physicians not named in this list.

Jackson, Daniel: Value of Tuberculin Testing, A.M.A. Arch. Int. Med. *95:*806 (June) 1955.

Jackson, I. J., and Snodgrass, S. R.: Peritoneal Shunts in the Treatment of Hydrocephalus and Increased Cranial Pressure, J. Neurosurg. *12:*216 (May) 1955.

Jacobs, W. M.: Modern Concepts in the Management of the Rh Negative Patient, M. Rec. & Ann. *49:*422-424 (Oct.) 1955.

Jacobs, W. M., and Ainsworth, J. T.: Spontaneous Rupture of the Uterus, Obst. & Gynec. *6:*114-115 (July) 1955.

Johnson, J. K.: Jejunogastric Intussusception: An Unusual Complication of Gastroenterostomy, Am. Surgeon *21:* 359-363 (April) 1955.

Johnston, R. A.; Cody, M. L.; and Jacobs, W. M.: Trends in Obstetric Anesthesia in One Large Urban Area, Obst. & Gynec. *5:*634-639 (May) 1955.

Joiner, B. A., and others: Morbidity of Abdominoperineal Resection, Surg. Gynec., & Obst. *101:*483 (Oct.) 1955.

Jordan, G. L., Jr.: The Afferent Loop Syndrome, Surgery *38:*1027-1035 (Dec.) 1955.

Kaden, V. G.; Howard, J. M.; and Doubleday, L. C.: Cholecystographic Studies During and Immediately Following Acute Pancreatitis, Surgery *38:*1082-1086 (Dec.) 1955

Karnaky, K. J.: Sixty-Four Threatened Abortions Treated with Micronized Vitaminized Stilbestrol, M. Rec. & Ann. *49:*401-406 (Sept.) 1955.

Kastleman, J. L.: Spigelian Hernia, M. Rec. & Ann. *49:*358, 360 (July) 1955.

Kee, John, Jr.; and Wylie, R. H.: An Analysis of the Operating Room Deaths on a Chest Surgical Service, Surg. Gynec., & Obst. *100:*735 (June) 1955.

Kinross-Wright, Vernon: Complications of Chlorpromazine Treatment, Dis. Nerv. System *16:*114-119 (April) 1955.

Kregel, L. A.: Spontaneous Rupture of the Stomach, Am. Surgeon *21:*505 (May) 1955.

Krusen, E. M.: Hemiplegia; With Special Emphasis on Problems of the Shoulder, South. M. J. *48:*612 (June) 1955.

Krusen, E. M., Jr., and Krusen, U. L.: Cervical Syndrome, Especially the Tension-Neck Problem; Clinical Study of 800 Cases, Arch. Phys. Med. *36:*518 (Aug.) 1955.

Leader, A. J.: Status of Radical Surgery for Early Carcinoma of the Prostate, J. Urol. *74:*142-149 (July) 1955.

Lewis, S. R., and Blocker, Virginia: Nutrition Studies in the Severely Burned, Ann. Surg. *141:*589-597 (May) 1955.

Lindsey, D. C., and Chrisman, W. P.: Gross Hematuria as the Presenting Symptom of Infectious Mononucleosis, J.A.M.A. *157:*1406-1407 (April 16) 1955.

Loeffler, R. K.: A System of Radium Distribution for Treatment of Cancer of the Corpus Uteri, Am. J. Roentgenol. *73:*425-436 (March) 1955.

Mahaffey, J. H.; Haynes, B. W., Jr.; Mallams, John; and DeBakey, Michael E.: Pseudocyst of the Pancreas Associated with Hydrothorax, Am. Surgeon *21:*601 (June) 1955.

Mahaffey, J. H., and others: Study of the Serum Amylase Concentration in Patients with Acute Perforation of Gastroduodenal Ulcers, Surg. Gynec., & Obst. *101:*129-132 (Aug.) 1955.

Maluf, N. S. R.: Further Studies on Absorption Through the Human Bladder, J. Urol. *73:*8 (May) 1955.

Maluf, N. S. R., and Spurr, C. L.: Effect of Cortisone on Reactivated Metastatic Carcinoma of Prostate, J. Am. Geriatrics Soc. *3:*745-753 (Oct.) 1955.

McConn, R. G., and others: Administration of the Veratrum Alkaloids Protoveratrene and Cryptenamine in the Treatment of Hypertension, South. M. J. *48:*774-781 (July) 1955.

McDonald, E. C.: Susceptibility of the Neurotic to Trauma, Dis. Nerv. System *16:*218 (July) 1955.

McKeever, D. C.: Patellar Prosthesis, J. Bone & Joint Surg. *37-A:*1074-1084 (Oct.) 1955.

McNeill, J. P., and Votteler, Theodore: Meconium Peritonitis, Am. Surgeon *21:*472 (May) 1955.

Meisenbach, A. E., Jr.: Tonography; Its Early Clinical Evaluation in Private Practice, South. M. J. *48:*1064-1069 (Oct.) 1955.

Mintz, A. A.; Church, G.; and Adams, E. D.: Cholelithiasis in Sickle Cell Anemia, J. Pediat. *47:*171-177 (Aug.) 1955.

Montgomery, H. G.: Mesenteric Cysts, Dallas Med. J. *41:*412 (Aug.) 1955.

Mooney, Ken: Hemartoma of Kidney, J. Urol. *73:*951 (June) 1955.

Moyer, J. H.: Treatment of Hypertension: Pathogenic Considerations and Older Methods of Therapy, South. M. J. *48:*1245-1253 (Nov.) 1955.

Moyer, J. H., and Beazley, H. L.: Effectiveness of Aramine in the Treatment of Shock, Am. Heart J. *50:*136-144 (July) 1955.

Moyer, J. H.; Dennis, Edward; and Ford, Ralph: Medical Management of Hypertension, M. Rec. & Ann. *44:*438-445 (Nov.) 1955.

Moyer, J. H.; McConn, R.; and Morris, G. C.: Effect of Controlled Hypotension with Pendiomid (As Used in Surgery) on Renal Hemodynamics and Water and Electrolyte Excretion; A Comparison with Hexamethonium and Arfonad and the Effect of Norepinephrine on These Responses, Anesthesiology *16:*355 (May) 1955.

Moyer, J. H.; Morris, G.; and Beazley, H. L.: Renal Hemodynamic Response to Vasopressor Agents in the Treatment of Shock, Circulation *12:*96-107 (July) 1955.

Moyer, J. H., and others: Medical Management of Hypertension; Drugs Blocking the Sympathetic Nervous System, M. Rec. & Ann. *49:*303 (June) 1955.

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Moyer, J. H., and others: Drug Therapy of Hypertension, M. Rec. & Ann. *49:*390-398 (Sept.) 1955.

Moyer, J. H., and others: Clinical Results with the Use of Roxinil (An Extract of Rauwolfia Serpentina) in the Treatment of Hypertension, Am. Heart J. *49:*751-757 (May) 1955.

Mullens, J. F.; Kirk, J. M.; and Shapiro, E. M.: Chloroquine Treatment of Lupus Erythematosus, South. M. J. *48:* 732-736 (July) 1955.

Nelson, R. A.; May, L. G.; Gregory, Raymond; Bennett, Alene; and Kobayashi, Mitsu: Comparison of the Effects of Pressor and Depressor Agents and Influences on Pulmonary and Systemic Pressures of Normotensive and Hypertensive Subjects, Am. Heart J. *50:*172-187 (Aug.) 1955.

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Nisbet, A. A.: Fixation Forceps, A.M.A. Arch. Ophth. *53:*720 (May) 1955.

Oliver, D. R., and Ward, R. A.: Acute Poliomyelitis: A Four Year Analysis in an Endemic Area, Am. Surgeon *21:*623 (June) 1955.

Overstreet, J. W., and Ochsner, Alton: Traumatic Rupture of the Esophagus, J. Thoracic Surg. *30:*164-180 (Aug.) 1955.

Panos, T. C.: Congenital Hypothyroidism, South. M. J. *48:*527-532 (May) 1955.

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Pickett, W. H.: Surgical Therapy of Esophageal Bleeding, Dallas M. J. *41:*317 (June) 1955.

Postlewaite, J. C.: Chemotherapy in Tuberculosis, Southwestern Med. *36:*533-536 (Nov.) 1955.

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Poth, E. J.: Rational Surgical Treatment of Duodenal Ulcer, Surg. Gynec., & Obst. *101:*489-492 (Oct.) 1955.

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Pritchard, J. A., and Ratnoff, O. D.: Studies of Fibrinogen and Other Hemostatic Factors in Women with Intrauterine Death and Delayed Delivery, Surg., Gynec., & Obst. *101:*467 (Oct.) 1955.

Rader, J. P.: Chronic Subdural Hematoma of the Spinal Cord, New England J. M. *253:*374-376 (Sept. 1) 1955.

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Ressman, A. C.; Pipkin, J. L.; and Lehmann, C. F.: Poisonous Arthropods of Southwest Texas, South. M. J. *48:*153-162 (July) 1955.

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Rushing, J. B.: A Method of Estimating Pulmonary Disease from Inspiration and Expiration Roentgenograms of the Lungs; Its Application to the Evaluation of Emphysema, Ann. Allergy *13:*576-585 (Sept.-Oct.) 1955.

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Sensenbach, Willis: Selection of Patients for Portacaval Shunting Procedures, Dallas Med. J. *41:*214 (June) 1955.

Shapiro, A. P.: Influence of Emotional Variables in Evaluation of Hypotensive Agents, Psychosom. Med. *17:*291 (July-Aug.) 1955.

Shaw, R. R.: Bronchoscopy in Pulmonary Disease, Dallas Med. J. *41:*152-154 (March) 1955.

Shaw, R. R., Paulson, D. L.; and Siebel, E. K.: Congenital Atresia of the Esophagus with Tracheo-Esophageal Fistula; Treatment of Surgical Complications, Ann. Surg. *142:*204 (Aug.) 1955.

Singleton, E. B.; McNamara, D. G.; and Cooley, D. A.: Retrograde Aortography in the Diagnosis of Congenital Heart Disease in Infants, J. Pediat. *47:*720-726 (Dec.) 1955.

Smith, Alice; Kedd, F. H.; and Harshbarger, M.: Amebic Abscess of the Liver in an Infant, J. Pediat. *47:*234-236 (Aug.) 1955.

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Spence, H. M.: Upper Urinary Tract Anomalies, Pediat. Clin. North America 675-693 (Aug.) 1955.

Stork, W. J.: Pulmonary Arteriovenous Fistulas, Am. J. Roentgenol. *74:*441-454 (Sept.) 1955.

Sutherland, D. A.: The Tagging of Leukemic Leukocytes with Radioactive Chromium and Measurement of the in Vivo Cell Survival, J. Lab. & Clin. Med. *45:*717-724 (May) 1955.

Thomason, T. H.: Prolapse of the Rectum, M. Times *83:*1026-1028 (Oct.) 1955.

Trunnell, J. B., and Bloedorn, F. G.: Radioactive Isotopes in the Treatment of Cancer, Postgrad. Med. *17:*483 (June) 1955.

Vermooten, Vincent: Diagnosis and Management of Urethral Injuries, M. Arts & Sc. *9:*1-10 (1st Quarter) 1955.

Vermooten, Vincent: Use of Radioactive Cobalt (Co_{60}) in Treatment of Bladder Tumors, J. Urol. *74:*85-92 (July) 1955.

Walker, J. C.: Intraspinal Tumors, Writings Scott and White Clinic *2:*1-5 (March) 1955.

Watson, J. E., Jr.: Diverticula of the Small Intestine: Clinical and Surgical Aspects, South. M. J. *48:*1182-1187 (Nov.) 1955.

Wheeler, J. I., Jr.: Psychological Evaluation of Women with Cancer of the Breast and of the Cervix, Psychosom. Med. *17:*256 (July-Aug.) 1955.

Yow, E. M.: A Revaluation of Sulfonamide Therapy, Ann. Int. Med. *43:*323-332 (Sept.) 1955.

★ Books

A Method of Balanced Anesthesia

SYLVAN M. SHANE, D. D. S., *Attending Anesthesiologist, Lutheran Hospital of Maryland; Chief of Anesthesiology, Doctors Hospital of Baltimore; and* HARRY ASHMAN, M. D., *Chief of Anesthesiology, Lutheran Hospital of Maryland. 53 pages. $2.25. Baltimore, Lowry and Volz, 1955.*

This small book describes the method of anesthesia originally designated as the "balanced mixture," more recently called "the Shane-Ashman method of anesthesia" or the "S-A Method." This so-called balanced mixture is made up of a usually fixed percentage of cyclopropane, nitrous oxide, and oxygen and induced by Evipal.

Prior to description of the technique and report of cases, the authors discuss the physiologic considerations of an ideal anesthetic and show how closely the commonly used general anesthetic agents and procedures approach this goal.

This book is clearly and concisely written and is an interesting treatise. The method described appears to have considerable merit especially in the hands of trained anesthetists. There seems to be little question of its safety as compared to other anesthetic agents and combinations in general use at the present time.

—R. H. Bell, M. D., Palestine.

Perinatal Mortality in New York City

SCHUYLER G. KOHL, M. S., M. D., Dr. P. H. *112 pages. $2.50. Cambridge, Harvard University Press, 1955.*

This small book represents a study of the stillbirths and perinatal deaths occurring in New York City for a period of one year. The method of collection and analysis of data received from the Department of Health is unique. It was of interest to find that the study revealed 35 per cent of the perinatal deaths to be preventable.

The evaluation of this ample procedure study is mainly of interest to trained public health officers.

—William B. Harrell, M. D., Texarkana.

Brucellosis

M. RUIZ CASTANEDA, *Director of the Department of Medical Investigations, Hospital General, Mexico, D. F.; Member of the Committee of Experts on Brucellosis of the Organization Mundial De La Salud. 302 pages. Mexico, D. F., La Prensa Medica Mexicana, 1954.*

This book is written in an interesting manner, and it sustains the attention of the reader throughout. It covers in detail the history, etiology, immunology, allergy, hematology, epidemiology, symptoms, morphology, pathogenesis, and therapeutic modalities employed and finally the method of control of this disease.

In the chapter on symptomatology there is an interesting description of the disease with data observed in patients suffering with brucellosis in Mexico.

There is a concise and accurate depiction of the pathologic changes in the various organs which are involved by this disease.

The book emphasizes the importance of brucellosis as a disease and points out the social and economic significance of the conditions produced by Brucella.

The chapter on therapeutics covers all the resources known at the present time for the prevention and treatment of the disease.

At the conclusion of the book an excellent collection of references reinforces the statements of the author and provides the person studying this subject ample opportunity to increase his knowledge.

—Armando Nasta, M. D., Galveston, and Joe C. Rude, M. D., Austin.

Clues in the Diagnosis and Treatment Of Heart Disease

PAUL D. WHITE, M. D. *174 pages. $5.50. Springfield, Ill., Charles C Thomas, 1955.*

This book is 174 pages of concentrated pearls gleaned from all sources to which the dean of American cardiologists would be exposed in his years of experience. Worth-while suggestions from all other cardiologists throughout the world have been carefully sifted and presented by the author. The sequential development of the book is along the usual lines of general discussion, important points in history, significant symptoms, signs, x-rays, electrocardiographic clues, and therapeutic clues. There are 25 roentgenograms and 21 electrocardiographic tracings reproduced with exceptional lucidity. This book can serve as a handy reference for many diagnostic tips, and will be of extreme interest to all physicians who enjoy good medical books.

—Walter Donald Roberts, M. D., Austin.

Clinical Biochemistry

ABRAHAM CANTAROW, M. D., *Professor of Biochemistry, Jefferson Medical College, and* MAX TRUMPER, Ph. D., *Formerly Lecturer in Clinical Biochemistry and Basic Science Coordinator, Naval Medical School, National Naval Medical Center, Bethesda, Md. ed. 5. 738 pages. $9. Philadelphia, W. B. Saunders Company, 1955.*

The authors have completely rewritten their excellent text on clinical biochemistry. The purpose of the work has been accomplished, namely, bridging the gap between basic biochemistry and clinical medicine. The first few chapters are devoted to the biochemistry of carbohydrates, lipids, proteins, vitamins, and minerals. Two important chapters have been added to this section, one on nucleic acid metabolism and one on hemoglobin and porphyrin metabolism. Interspersed through these chapters are the relationship of basic concepts to clinical application. Chapters on sodium, potassium, and chloride metabolism, water balance, acid-base balance, and respiratory exchange will give the medical practitioner a valuable insight into biochemical problems that he faces daily in his patients. The chapter on hormone assay and endocrine function will bring the reader up to date on the advances in this field, and also indicate to him those hormone assays which are feasible for clinical application. The chapter on iodine metabolism is short, but there is an excellent discussion of the use of radioactive iodine uptake studies in hyperthyroidism and hypothyroidism. The last five chapters are devoted to the biochemical function of gastric secretions, the pancreas, the liver and biliary tract, the kidneys, and the biochemistry of cerebrospinal fluid.

Matters of controversy are presented impartially and on some occasions supplemented by personal opinion.

In the mind of this reviewer, this text should be a part of any clinician's medical reference library, as it is one of the few texts which aid the clinician in correlating the basic science of biochemistry with his clinical judgment for the benefit of the patient.

—John D. Kirby, Ph. D., Austin.

Medical Jurisprudence

I. GORDON, M. B., Ch. B., *Senior Government Pathologist, Union Health Department, Durban;* R. TURNER, M. B., Ch. B., D. P. H., *Professor of Medical Jurisprudence, University of Cape Town; and* T. W. PRICE, Ph. D., M. A., LL. B., *Advocate of the Supreme Court of South Africa. ed. 3. 944 pages. $13.50. Edinburgh and London, E. and S. Livingstone, 1953.*

This is the third edition of a book which originally was written by Rhodes, Gordon, and Turner.

After the death of Dr. Rhodes, Professor Price, an attorney, became one of the authors. This edition has a new publisher, and sections have been expanded, particularly in medicolegal aspects of alcoholism and blood grouping.

Specific new topics are artificial insemination, sterilization, sale of medical practice, restrictive covenants in partnership contracts, and the importance of physicians' records.

The table of contents and the index facilitate the use of the book.

The fact that the book is directed to medical jurisprudence in the Union of South Africa and Southern Rhodesia limits its value to the American practitioner. However, it is a valuable addition to the serious student of medicolegal problems.

★ American Medical Association

New Booklets For Medical Societies

Two booklets of interest to medical societies were published by the American Medical Association early in February. The first, "Guides for Medical Society Grievance Committees," reviews the findings and recommendations of the special committee on grievance committees appointed by the Board of Trustees. The second publication, "Report of the Survey on County Medical Society Activities," will include data on society meetings, budgets, educational and scientific programs, personnel, building facilities, the work of various kinds of committees, and the extent of public relations activities. Copies of both booklets will be mailed to each state and county medical society.

★ Texas Medical Association

New Appointments

Dr. Joe R. Donaldson, Pampa, was appointed January 22 by the Board of Trustees to the Committee on Public Relations to fill the vacancy created by the resignation September 10 of Dr. H. M. Anderson, San Angelo.

The Board of Councilors, meeting January 21, approved Dr. James P. Anderson, Brady, as Vice-Councilor of the Fourth District and Dr. B. E. Park, Dallas, as Vice-Councilor of the Fourteenth District.

Pat Bailey, Refugio, has been named as assistant legal counsel to work with Philip R. Overton, general counsel for the Texas Medical Association. Mr. Bailey was graduated from the University of Texas Law School, Austin, last month but passed his bar examination in November. He received a bachelor of business administration degree from Texas Agricultural and Mechanical College, College Station, in 1950, then served two years in the Army during the Korean War. He is married and has four children.

TMA TO SPONSOR CONFERENCE ON PHYSICIANS AND SCHOOLS

In an attempt to improve the relationship between the medical profession and the education profession in Texas, the Committee on School-Physician Relationships of the Texas Medical Association, in cooperation with the Texas Education Agency and the Texas State Department of Health, will sponsor a Conference on Physicians and Schools, March 15 and 16, at the Association's headquarters building in Austin.

Registration will begin at 12:30 p. m. Thursday, March 15, and will be followed by a general meeting. Fred V. Hein, Ph. D., of the Bureau of Health Education of the American Medical Association will speak at this opening assembly; other keynote speakers will be Dr. J. Layton Cochran, President of the Texas Medical Association; Dr. Henry A. Holle, Austin, commissioner of health; and Lee Wilborn, Ph. D., assistant commissioner for instruction, Texas Education Agency.

Following a midafternoon coffee break, those in attendance will divide into five discussion groups, each of which will cover the following topics: "Role of the Physician, Dentist, and School Administrator in the School Health Problem," "Communicable Diseases," "Emergency Care and Athletic Injuries," "Methods of Health Appraisal and Screening Techniques," and "Health Examination and Health Records for School Children." Those attending the various groups may offer other topics if they wish. Members of the Committee on School-Physician Relationships will serve as group chairmen; Dr. J. M. Coleman, Austin, president of the Travis County Medical Society, also will serve in that capacity.

A banquet will be held at the Driskill Hotel Thursday night. Friday morning, the discussions will continue, and a motion picture will be shown to the entire group at 11:30 a. m.

Luncheon will be served in the Association building at 12 noon, and after lunch, recorders for the different groups will summarize their group discussions for the entire assembly.

Organizations invited to send representatives are each county medical society, Woman's Auxiliary to the Texas Medical Association, State Health Department, Texas Education Agency, Texas Dental Society, Texas Pediatric Society, Texas Graduate Nurses Association, Texas Academy of General Practice, Texas Tuberculosis Association, Texas Society of Mental Health, Texas Society of Ophthalmology and Otolaryngology, Texas Safety Association, Texas Congress of Parents and Teachers, Association of School Physicians, Texas Association of School Administrators, Texas State Teachers Association and Texas Association of School Board Members. In addition, all officers of the Texas Medical Association, including the Board of Trustees and Councilors, are invited to attend.

Refresher Course Faculty

DR. EDWARD P. CAWLEY, *Professor and Chairman, Department of Dermatology, University of Virginia School of Medicine, Charlottesville.*

DR. JOHN DERHAM, *Paediatrician and Deputy Medical Superintendent, Alder Hey Children's Hospital, Liverpool, England.*

DR. JOSEPH H. BOYES, *Assistant Clinical Professor of Surgery, University of Southern California, Los Angeles.*

DR. REX L. DIVELEY, *Associate Professor, Orthopaedic Surgery, University of Kansas School of Medicine, Kansas City.*

DR. HOWARD T. BARKLEY, *Thoracic Surgeon, Houston.*

DR. ROBERT M. MOORE, *Professor and Chairman, Department of Surgery, University of Texas Medical Branch, Galveston.*

DR. G. W. N. EGGERS, *Professor of Orthopedic Surgery, University of Texas Medical Branch, Galveston.*

DR. EMMA S. MOSS, *Director, Department of Pathology, Charity Hospital of Louisiana; President, American Society of Clinical Pathologists, New Orleans.*

DR. SAMUEL F. MARSHALL, *General Surgery, Lahey Clinic, Boston.*

DR. F. RAYMOND KEATING, JR., *Professor of Medicine, Mayo Foundation for Medical Education and Research, Rochester, Minn.*

DR. O. SPURGEON ENGLISH, *Professor and Head, Department of Psychiatry, Temple University School of Medicine and Hospital, Philadelphia.*

DR. SARA M. JORDAN, *Director, Department of Gastroenterology, Lahey Clinic, Boston.*

NEWTON GRESHAM, *Attorney, Houston.*

DR. J. EDWARD JOHNSON, *Internist, Austin.*

DR. PAUL C. HODGES, *Professor and Chairman, Department of Radiology, University of Chicago; President, American Roentgen Ray Society, Chicago.*

DR. WALTER S. PRIEST, *Associate Professor of Medicine, Northwestern University Medical School; President, American College of Cardiology, Chicago.*

DR. FREDERICK C. REHFELDT, *Chairman, Insurance Committee, Tarrant County Medical Society, Fort Worth.*

SMITH PETTIGREW, *Medical Co-Ordinator, Texas Employers' Insurance Association and Employers' Casualty Company, Dallas.*

DR. RALPH A. REIS, *Professor of Obstetrics and Gynecology, Northwestern University Medical School, Chicago.*

Registration Begins

JESS NEELY, *Head Football Coach and Athletic Director, Rice Institute, Houston.*

DR. HERBERT E. SCHMITZ, *Professor and Chairman, Department of Obstetrics and Gynecology, Stritch School of Medicine of Loyola University, Chicago.*

A refresher course program, presented for the first time by the Texas Medical Association at its 1955 annual session in Fort Worth, is again scheduled as a part of the convention program. Nineteen refresher courses, each consisting of an hour of lecture by an outstanding national medical leader or panel of experts plus a half hour of questions and answers, are being offered. Primarily for the benefit of physicians doing general practice but also of value to specialists, the courses, like the rest of the scientific program at the annual session, will be granted informal hour-for-hour credit by the Texas Academy of General Practice.

Courses are scheduled for 8:15 to 9:45 a. m., Monday through Wednesday, April 23-25, and a physician may register for as many as three courses, one each day. Attendance is limited, with admission only by ticket, for which there is no charge.

Only members of the Texas Medical Association will be registered for the courses until April 16, at which time other requests will be considered. After April 16, applications received from residents and interns who are not members of the Association will be filled as tickets are available. Applications from members will be filled in the order they are received. If first choice courses are full, efforts will be made to send tickets for second or third choices designated by the applicant. If a physician who has registered for any of the courses finds that he will be unable to attend, he should return his tickets to the central office immediately so as to allow others to attend in his place. For convenience, a postage-paid order card for the refresher courses, as well as a request for hotel accommodations, is included in this issue of the *Journal*.

Tickets for which applications were received after April 16 and any not yet reserved at the time of the meeting will be available at the Association's refresher course or ticket

DR. MAURICE S. SEGAL, *Clinical Professor of Medicine, Tufts University School of Medicine, Boston.*

EDDIE WOJECKI, *Football Trainer, Rice Institute, Houston.*

DR. PERRY P. VOLPITTO, *Professor of Anesthesiology, Medical College of Georgia, Augusta.*

(Not pictured) DR. RICHARD ALLISON, *Superintendent, McKnight Tuberculosis Hospital, Sanatorium.*

DR. EDWARD T. SMITH, *Clinical Professor of Orthopaedic Surgery, Baylor University College of Medicine, Houston.*

desk in the lobby of Hotel Galvez throughout the convention. All refresher courses will be held at the Galvez Hotel in rooms on the lobby and basement floors. Syllabuses prepared by the faculty of the courses will be distributed at the sessions.

In applying for registration, please note the name of the speaker and the course number, giving first, second, and third choices.

All inquiries about refresher courses prior to April 16 should be addressed to Refresher Courses, Texas Medical Association, 1801 North Lamar Boulevard, Austin; after that date to Refresher Courses, Texas Medical Association, Hotel Galvez, Galveston.

MONDAY, APRIL 23, 8:15 to 9:45 a. m.

Hotel Galvez

M-1 *The Precancerous Dermatoses.*

EDWARD P. CAWLEY, Charlottesville, Va.

The tendency for cancer to develop frequently in a certain group of skin disorders has given rise to the term "precancerous dermatoses." The group includes (1) senile keratoses; (2) keratoses resulting from the administration of inorganic arsenic, exposure to tars and certain related compounds, and roentgen irradiation; (3) leukoplakia; (4) kraurosis vulvae; (5) Bowen's disease; and (6) xeroderma pigmentosum. Most precancerous lesions of the skin are amenable to treatment if recognized during their period of evolution. Important features, including treatment, will be described.

M-2 *Gastroenteritis in Infancy.*

JOHN DERHAM, Liverpool, England.

A total of 7,422 children less than 1 year of age died in Texas in 1954. Of these, 774 died from gastroenteritis; 99 more from "diarrhea of the newborn." Thus almost 12 per cent died from gastroenteric infection. In 1952 gastroenteritis caused about one-twelfth of infant death in Great Britain. The instructor studied 466 cases of gastroenteritis in three Liverpool hospitals during 1955 and will explain how the death rate was held to less than 1 per cent through restoration of homeostasis, by recognition of pathogenic coliform bacilli, and especially by administration of effective antibiotics.

M-3 *Diagnosis and Treatment of Painful Feet.*

REX L. DIVELEY, Kansas City, Mo.

The person with painful, aching feet deserves careful consideration. He is often an economic problem from the standpoint of employment. Unfortunately, most doctors and many orthopedic surgeons feel that treatment of a functional foot disorder is beneath their dignity and level of interest, yet approximately 40 per cent of the civilian population more than 20 years old has some foot disorder sufficient to cause lowered efficiency and in many instances serious disability.

M-4 *The Peptic Ulcer Problem.*

SARA M. JORDAN, Boston, Mass.

Peptic ulcer remains a problem in many respects: (1) roentgen-ray diagnosis of ulcer in certain areas difficult to visualize; (2) a clinical diagnosis when an atypical history is present; (3) treatment when intractability is real or assumed and when in gastric ulcer malignancy must be considered. There are also complications with the attending question as to when surgery must supplant medical treatment. Finally, there is still the enigmatic problem of etiology.

M-5 *Diagnostic Precision and Clinical Usefulness of Various Modern Tests of Thyroid Function.*

F. RAYMOND KEATING, JR., Rochester, Minn.

A variety of techniques have been developed in recent years for evaluation of thyroid function, and most of these have been adapted to serve as diagnostic tests. Two fundamental criteria for the evaluation of any diagnostic test are its specificity and its sensitivity. Subjects to be covered include the basal metabolic rate, serum cholesterol, protein-bound iodine, radioiodine tests of hormone synthesis and storage, and conversion ratio.

M-6 *Present Day Cervix Cancer.*

HERBERT E. SCHMITZ, Chicago, Ill.

Present day treatment of cancer represents a remarkable picture of team work between the variously involved contributory sciences. In prior years the hope of the cancer patient rested on the skill and boldness of a few master surgeons. With the new concept, treatment is never considered hopeless. Although the golden opportunity for successful treatment occurs with the earliest stages, the improvement of radiologic and surgical techniques has brought salvation to many who would otherwise be lost.

M-7 *Factors Influencing Morbidity and Mortality in the Surgical Patient.*

PERRY P. VOLPITTO, Augusta, Ga., Moderator;
MAURICE S. SEGAL, Boston, Mass.; and
ROBERT M. MOORE, Galveston.

From the surgical viewpoint emphasis is placed upon preventing unnecessary complications by attention to preoperative study and the operation. The anesthesiologist will bring out the factors of judicious choice of premedication and anesthesia, together with patient care during and immediately following anesthesia. The internist will discuss respiratory problems involving the normal and diseased chest, steroid therapy in surgical patients, and the role of smoking in the surgical patient with a normal chest and with pulmonary disease.

TUESDAY, APRIL 24, 8:15 to 9:45 a. m.

Hotel Galvez

T-11 *Basic Principles of Technique in Surgery of the Hand.*

JOSEPH H. BOYES, Los Angeles, Calif.

Diagrams, slides, and motion pictures will illustrate the fundamental technical procedures utilized in surgery of the hand. The use of the tourniquet, the site of elective incisions, and in considerable detail the technique of repair of tendons and of nerves will be discussed. The indications or contraindications for any particular surgical procedure will not be covered, but emphasis is placed on the performance of those procedures which are common to all operations on the hand.

T-12 *Daily Office Problems in Psychosomatic Medicine.*

O. SPURGEON ENGLISH, Philadelphia, Pa.

This refresher course will deal with office problems in the management and treatment of the psychosomatic case. The instructor will evaluate the use of the newly introduced tranquilizing drugs in psychosomatic cases and discuss any advantages that can accrue from the hospitalization of psychosomatic patients. Two cases will be cited to illustrate the points made.

T-13 *Benign and Malignant Neoplasm of Bone.*

PAUL C. HODGES, Chicago, Ill.

In patients suspected of having primary or metastatic neoplasm of the skeleton, the radiologist's most important contribution is the determination of the existence, location, and size of lesions, which he does easily and accurately. The criteria—some false, some dependable—which enable radiologists to attempt to determine whether a given lesion is benign or malignant, primary or metastatic, and even to guess as to its cellular nature will be illustrated and evaluated.

T-14 *Treatment of Endometriosis.*

RALPH A. REIS, Chicago, Ill.

No treatment is necessary in the early stages of endometriosis. When the acquired dysmenorrhea and the gradually increasing dyspareunia

require relief, this often can be obtained by the administration of estrogens or androgens. Surgical interference is required for increasing symptomatology or sterility resulting from adhesions. Such sterility frequently can be overcome by freeing the adhesions and removing the individual areas of endometriosis. When definitive surgery is required, this should always include total hysterectomy.

T-15 *Anesthesia in Acute Traumatic States.*

PERRY P. VOLPITTO, Augusta, Ga.

The common occurrence of severe trauma to various parts of the body presents many and varied problems when emergency surgery is contemplated. The management of these patients, whether the injury be head, chest, abdomen, or extremities, will be discussed. Stress on not only the actual management of the anesthesia but also the extent of preparation for such patients deserves serious consideration.

T-16 *Medical, Legal, and Insurance Aspects of the Treatment of Industrial Injuries.*

FREDERICK C. REHFELDT, Fort Worth, Moderator;
MR. SMITH PETTIGREW, Dallas;
MR. NEWTON GRESHAM, Houston; and
G. W. N. EGGERS, Galveston.

The panel will explore the physician's contribution to the effectiveness of the Compensation Law and his obligations under the law. Most of the course will cover reports of injury, estimates of disability, and the basis for computing and collecting professional charges. The lawyer-panelist will present the legal pitfalls of the report of injury and of testimony. With industrial employment increasing in Texas this is a timely and vital subject.

WEDNESDAY, APRIL 25, 8:15 to 9:45 a. m.

Hotel Galvez

W-21 *Surgical Treatment of Peptic Ulcer, Carcinoma, and Other Tumors of the Stomach.*

SAMUEL F. MARSHALL, Boston, Mass.

Surgical treatment of peptic ulcer should be reserved for complications of peptic ulcer and to rule out carcinoma in the gastric ulcer. Radical partial gastrectomy of the stomach for various types of peptic ulcer is still the most valuable surgical method of treatment. Since the majority of gastric tumors prove to be carcinoma, there has been a tendency toward radical surgery for treatment of gastric carcinoma. The importance of careful case selection for total gastrectomy will be stressed.

W-22 *Fungus Diseases in Every Doctor's Practice.*

EMMA S. MOSS, New Orleans, La.

W-23 *Coronary Artery Disease.*

WALTER S. PRIEST, Chicago, Ill.

The several clinical manifestations of the disease will be discussed as expressions of a single basic phenomenon, namely, impairment of arterial blood supply to the myocardium resulting from coronary atherosclerosis. Emphasis will be placed on correct evaluation of symptoms suggestive of coronary artery disease but actually due to other causes. Discussion of treatment will include reference to improving coronary circulation by surgical procedures.

W-24 *Management of the Patient with Intractable Bronchial Asthma.* MAURICE S. SEGAL, Boston, Mass.

Limited to several phases in the management of the patient in status asthmaticus, this discussion will include (1) water-saline-glucose and aminophyllin infusions; (2) use of epinephrine; (3) therapeutic use of gases and aerosols; (4) bronchial evacuation, "catharsis"; (5) remissive therapy with the use of corticotropic and corticosteroid hormones; (6) limitations of thoracic surgical procedures; (7) use of pressure breathing therapy and alternating positive and negative pressures; and (8) psychosomatic aspects and the role of the newer tranquilizing agents.

W-25 *Athletic Injuries.*

EDWARD T. SMITH, Houston, Moderator;
MR. JESS NEELY, Houston; and
MR. EDDIE WOJECKI, Houston.

Primarily an informal session, the course will emphasize various methods of preventing accidents in talks by a coach, a trainer, and a physician. Subjects to be covered will include physical condition of the athlete, equipment, and coaching technique. Various injuries which are encountered in athletics will be taken up and briefly discussed from the standpoint of prevention and treatment.

W-26 *Advances in Treatment and Control of Tuberculosis.*

J. EDWARD JOHNSON, Austin, Moderator;
JOHN DERHAM, Liverpool, England;
HOWARD T. BARKLEY, Houston; and
RICHARD ALLISON, Sanatorium.

The panel will discuss the problem of prevention and diagnosis of tuberculosis together with the changing concepts in treatment including bed rest, drugs, surgery, and sanatorium care. Stress will be laid on the continuing importance of tuberculosis to physicians and the public.

Annual Session News

The March issue of the *Journal* will carry a complete program of the Texas Medical Association annual session to be held in Galveston, April 21-25. Following are some items relating to the session that are of particular interest now.

Advance Registration

This year for the first time members of the Texas Medical Association may register for the annual session by mail. A business reply card will be sent to each member with annual session publicity soon. By completing the card and mailing it, a doctor need visit the registration desk in Galveston only to pick up his badge and program—no other cards need be filled out then. There will be no registration fee, and a doctor will be under no obligation if his plans are altered and he is unable to attend the session after registering by mail.

Transportation

Visitors to Galveston whose plane or train schedule terminates in Houston may find the direct limousine service operated by the Galveston Limousine Service, 2109 Church, Galveston, helpful. Direct transportation at special rates can be arranged between Houston railway stations and Galveston. Regular limousine schedules between the Houston airport and Galveston, with pick-up and delivery at any Galveston address, operate as follows:

Lv. Gal.	Ar. Hou.	Lv. Hou.	Ar. Gal.
6:00 a. m.	6:50 a. m.	7:30 a. m.	8:30 a. m.
8:00 a. m.	8:55 a. m.	9:40 a. m.	10:40 a. m.
1:30 p. m.	2:30 p. m.	3:15 p. m.	4:15 p. m.
2:00 p. m.	3:00 p. m.	4:00 p. m.	5:00 p. m.
3:45 p. m.	4:45 p. m.	7:30 p. m.	8:30 p. m.
5:30 p. m.	6:30 p. m.	10:15 p. m.	11:15 p. m.
8:00 p. m.	8:55 p. m.	11:30 p. m.	12:30 a. m.

Because of anticipated congestion at the time of the annual session, those expecting to make use of limousine service at that time should notify their transportation line in advance so that additional cars can be provided if necessary.

Monday, Tuesday, and Wednesday of the session special

busses will ply between hotels and meeting places along Seawall Boulevard, a Texas Medical Association or Woman's Auxiliary badge being the only fare required.

Scientific Exhibits

February 25 is the deadline for scientific exhibit applications to be in the hands of Dr. Edward T. Smith, Hermann Professional Building, Houston, chairman of the Committee on Scientific Exhibits.

Specialty Societies

Specialty groups meeting during the annual session period are as follows:

Texas Air-Medics Association, Sunday afternoon and Monday.

Texas Chapter, American Association of Public Health Physicians, Monday afternoon.

Texas Chapter, American College of Chest Physicians, Sunday.

Texas Dermatological Society, Monday morning (clinical program for members only, Sunday).

Texas Diabetes Association, Sunday.

Texas Heart Association, Sunday (executive committee and board of directors, Saturday).

Texas Neuropsychiatric Association, Sunday.

Texas Orthopedic Association, Monday.

Texas Railway and Traumatic Surgical Association, Monday.

Texas Society of Anesthesiologists, Sunday (dinner for members only, Saturday).

Texas Society of Gastroenterologists and Proctologists, Monday afternoon.

Texas Society of Pathologists, Tuesday afternoon.

Texas Society of Plastic Surgeons, Saturday.

Conference of City and County Health Officers, Monday afternoon.

Scientific programs of the aforementioned groups are open to all members of the Texas Medical Association. Physicians also are invited to attend meetings of the Texas Chapter of the American Physical Therapy Association, Saturday and Sunday morning, and the Texas Occupational Therapy Association, Saturday and Sunday morning.

Fishing

Doctors interested in a fishing trip are requested to write Dr. W. W. Stephen, Medical Building, 22nd and Avenue I, Galveston. Arrangements can be made to charter a boat all day for doctors only to fish off Heald Bank. A minimum of 20 persons at $10 each would be required. A half-day fishing trip to the jetties would require a minimum of 15 at $5 each to charter a boat. Dr. Stephen can provide additional information about these and other noncharter fishing arrangements.

Local Committee Changes

Revisions in the list of local committees printed in the January *Journal* follow:

Finance.—Substitute Spencer G. Thompson for Ian Thompson.

Alumni and Fraternity.—John W. Middleton, Chairman; Robert E. Casey, Burke Evans, Marshall L. Fowler, Edward D. Futch (Alpha Kappa Kappa), William W. Hander, Titus H. Harris, Charles Hooks (Phi Rho Sigma), W. J. Jinkins, Jr. (Phi Beta Pi), John E. Johnson (Theta Kappa Psi), Jesse B. Johnson, Jr., William C. Levin (Phi Delta Epsilon), Lawrence G. May, Marcel Patterson (Phi Chi), A. O. Singleton, Fred Wolma (Nu Sigma Nu).

Hotels.—Substitute Kenneth M. Earle for Marcel Patterson.

Information.—Add B. R. Parrish.

Memorial Services.—Substitute Carl J. Fuchs for Edward D. Futch.

Publicity.—Substitute Leo Duflot and G. W. N. Eggers for Charles A. Hooks.

Scientific and Technical Exhibits.—Substitute J. L. Jinkins for W. J. Jinkins and Ian Thompson for Spencer G. Thompson.

Transportation.—Substitute Worth Walton for Fred Wolma and John E. Johnson.

Executive Council

Approximately 250 doctors and guests gathered at the Texas Medical Association headquarters building in Austin for a Conference of County Medical Society Officials, a Symposium on Legislation, and a meeting of the Executive Council January 21 and 22. Saturday, January 21, was devoted to the conference, symposium, and committee meetings, and a lunch was served in the building. Senator Price Daniel, Austin, and Clarence E. Manion, South Bend, Ind., former chairman of the Commission on Intergovernmental Relations, were guest speakers on the legislative program. Sunday the Executive Council met and heard reports from the various committees.

A resolution was adopted by the Executive Council expressing sorrow at the death of Dr. Sam E. Thompson, Kerrville.

Some of the items presented before the Executive Council are as follows:

Trustees.—The Board of Trustees approved the budget for 1956, and reported that the Association is on a sound financial basis. The Board approved several changes affecting the *Journal*, and awarded a contract for a retirement program for Association staff members. It was recommended that the method of selecting the annual session city be changed so that invitations from prospective host cities will be presented to the House of Delegates, then referred to the Council on Scientific Work for investigation before a final decision is made by the Executive Council.

Executive Secretary.—In addition to programs on nonmedical topics, the central office staff is arranging scientific programs which will be available for county societies. Doctors in 195 counties are utilizing the Library services; reference requests in 1955 reached 2,313, a 10 per cent increase over the year before; a 20 per cent increase occurred in the materials circulated by the Library; and 684 films were shown. The Physicians Placement Service distributed information to 521 doctors interested in Texas practice, and aided 162 communities and clinics seeking doctors. During the past year, the number of pieces of out-going mail increased 116 per cent, and utilization of the headquarters building increased more than 50 per cent. A portable exhibit has been built to illustrate the services of the Association.

Texas reported the largest gain in membership, percentagewise, of any state medical association during 1955, and it appears probable that Texas will be entitled to one more delegate in the American Medical Association House of Delegates in 1957.

Councilors.—The problem of branch societies in congested areas was discussed, and a subcommittee was named to study the situation further. It was decided that working with or for osteopaths, directly or indirectly, is unethical.

and that county medical societies should investigate such practices and take appropriate action where indicated.

Medical Jurisprudence.—The publication and distribution of a legislative news letter was discussed, as was the hospital districting bill. A delegation will be sent from Texas to appear before the Senate Finance Committee in opposition to HR 7225, an amendment to the social security act.

Scientific Work.—Information was presented about the forthcoming annual session in Galveston. It was reminded that the 1957 session will be in Dallas, April 27-May 1, and that the 1958 session is tentatively scheduled for Houston on the week of April 20.

Medical Economics.—A brochure to help patients read and compare hospitalization insurance policies is being printed for distribution to members of the Association. The Council asked permission to serve as an adjudication board for the health and accident insurance program of the Association with the Lumbermen's Mutual Casualty Company.

Medical Education and Hospitals.—The Texas Joint Commission for the Improvement of Care of the Patient wishes to employ an executive secretary to coordinate its work. The Council on Medical Education and Hospitals asked that doctors of medicine contribute $10,000 toward setting up such an office, and the request was referred to the Board of Trustees. Reports were presented in regard to fellowships in cancer research, accreditation for small hospitals, psychiatric residencies, and the National Science Fair movement.

Nursing Care.—It was recommended that the Committee on Nursing Care be discontinued as such, but be enlarged into a Council on Patient Care. This council would deal with problems of paramedical groups, and act as a liaison group of the Association with the Joint Commission for Improvement of Care of the Patient.

Industrial Health.—Meetings on industrial health are scheduled later in the year at Tyler and the Beaumont-Port Arthur area.

Constitution and By-Laws.—A hearing was held with the Board of Councilors to clarify some points in the amendments proposed for the By-Laws by the Councilors.

Cancer.—A plan to inaugurate a "Cancer Page" each month in the *Journal* was referred to the Board of Trustees. A list of speakers will be made available, through the cooperation of the Texas Division of the American Cancer Society, to county societies for their meetings. Films also are available, and a pamphlet on cancer quackery is to be circulated to Texas doctors.

Public Relations.—The final report on the doctor distribution survey was discussed, as was the booklet on Association services to be sent to all members. The Association and the Woman's Auxiliary will sponsor and promote science fairs.

Tuberculosis.—General information concerning tuberculosis was presented along with five recommendations on how best to control tuberculosis in Texas.

Mental Health.—An educational campaign to enlighten the public about the amendment to the State Constitution which would revise the methods of commitment to state mental institutions is proposed. This report was received after the Executive Council met and has not yet been acted upon.

Public Health.—Fluoridation of water in the amount of one part per million was approved by the Committee on Public Health. This report will be presented to the House of Delegates for action.

Blood Banks.—The functions of blood bank clearing houses were outlined, and a brief background was given on the Joint Blood Council, an organization which has been interested in the development of a national clearing house program.

Delegates to the American Medical Association.—The Texas delegation presented 8 of the 37 resolutions considered by the AMA in December, of which 5 were adopted.

Maternal Mortality.—To date, 114 cases have been studied.

Negro Medical Facilities.—With the change in the Association's Constitution deleting the word "white," the Committee requested a definition of its functions for the future.

Rural Health and Doctor Distribution.—The results of the statewide survey on doctor distribution are to be turned over to the Committee on Public Relations for general publicity.

School-Physician Relationships.—A conference on physicians and schools will be held at the headquarters building in Austin March 15 and 16.

American Medical Education Foundation.—An increase in the Association's dues was recommended, with the proposed increase to be channeled to the American Medical Education Foundation.

National Emergency Medical Service.—The Association has been asked to integrate this committee into the state civil defense structure, and to make it either a council or standing committee so that it may have continuity of membership. This committee wishes to establish a library on civil defense and a speakers' bureau. The Executive Council was informed that a mobile hospital unit for demonstration purposes will be obtained this year and will be available on loan.

★ District Societies

Eleventh District Society

October 20, 1955

Meeting in Palestine October 20, members of the Eleventh District Medical Society elected R. H. Kay, Palestine, president; Harvey Ross, Henderson, vice-president; and Hugh F. Rives, Jacksonville, secretary-treasurer.

Robert J. Rowe and Jerry Sherman, both of Dallas, spoke at the afternoon session. Dr. Rowe discussed anorectal diseases, and Dr. Sherman explained the use of an artificial kidney.

Fourteenth District Society

December 6, 1955

The Fourteenth District Medical Society met December 6 in Greenville and faculty members from the University of Texas Southwestern Medical School, Dallas, presented the scientific program. At the business meeting which followed, a resolution was passed in memory of Dr. L. W. Johnston, Terrell, who was secretary of the society at the time of his death.

It was voted to suspend meetings of the society until such time as better attendance could be obtained. No officers were elected.

★ County Societies

Bell County Society

December 7, 1955

The Bell County Medical Society met in Temple December 7, and N. T. Werthessen, Ph. D., of the Southwest Foundation for Research and Education, San Antonio, spoke on "Factors Regulating the Metabolism of Cholesterol in the Aorta."

At a business meeting, the following officers were elected to serve for 1956: J. B. Brown, president; L. M. Cochran, vice-president; and J. F. McKenney, Jr., secretary-treasurer. All the new officers are from Temple.

—Reported by J. B. Brown, Secretary.

Big Bend Counties Society

November 1, 1955

Mr. C. Lincoln Williston, Executive Secretary of the Texas Medical Association, presented a paper, "Doctors' Dilemma: Pending Health Legislation, 1956," at the November 1 meeting in Fort Stockton of the Big Bend Counties Medical Society. Prior to the business and professional parts of the program, a dinner for the doctors and their wives was held. Three films, 'Ether Analgesia," "Glaucoma and the General Practitioner," and "Rheumatoid Arthritis" were shown.

—Reported by D. J. Sibley, Secretary.

December 6, 1955

The Big Bend Counties Medical Society met in Fort Stockton December 6, and a dinner was held. John L. Clark, Jr., Odessa, presented a paper on poliomyelitis, which emphasized management of the patient who requires artificial respiratory aid. Two movies were shown. They were "Use of Pronestyl" and "Endotracheal Anaesthesia."

At the business meeting, the following new officers were elected: D. J. Sibley, Jr., Fort Stockton, president; John W. Pate, Sanderson, vice-president; John C. Hundley, Fort Stockton, secretary; Walter H. Stover, Marfa, treasurer; Charles E. Oswalt, Jr., Fort Stockton, delegate; and William E. Lockhart, Jr., Alpine, alternate.

—Reported by D. J. Sibley, Secretary.

January 9, 1956

Marvin E. Grice, Odessa, spoke on the use of Thorazine at the January 9 meeting in Fort Stockton of the Big Bend Counties Medical Society. It was voted to accept the model constitution suggested by the Texas Medical Association.

—Reported by John C. Hundley, Secretary.

Dallam-Hartley-Sherman-Moore Counties Society

November 3, 1955

Mr. Smith Pettigrew, Dallas, of the Southwestern Insurance Information Service, was guest speaker at the November 3 meeting of the Dallam-Hartley-Sherman-Moore Counties Medical Society in Dumas.

Hill County Society

January 13, 1956

"Toxemias of Pregnancy," a film prepared by Irwin, Neisler & Company, was shown at the regular meeting of the Hill County Medical Society January 13. The society accepted the invitation of the Hill County Tuberculosis Association to hold a joint meeting in April.

—Reported by Dick Cason, Secretary.

Lubbock-Crosby Counties Society

November 1, 1955

J. E. Miller, associate professor of radiology, Southwestern Medical School of the University of Texas, Dallas, spoke on "Minimal Adequate Film Study for Upper Tract Gastrointestinal Series" at the November 1 meeting of the Lubbock-Crosby Counties Medical Society in Lubbock.

—Reported by Roy Riddel, Jr., Secretary.

December 6, 1955

Members of the Lubbock-Crosby Counties Medical Society voted to have a dinner meeting as a part of each monthly session. This action was taken at the December 6 meeting in Lubbock. The scientific speaker for the evening was William H. Gordon, Lubbock, whose topic was "Background of Athrogenesis."

Officers for 1956 are Roy L. Riddel, Jr., president; R. Q. Lewis, vice-president; Harold Warshaw, secretary; and Clyde F. Elkins, Jr., treasurer. All the officers are from Lubbock.

—Reported by Roy Riddel, Jr., Secretary.

Potter County Society

November 7, 1955

At a meeting in Amarillo November 7, doctors of the Panhandle area heard J. A. del Regato, Colorado Springs, speak on the treatment of carcinoma of the cervix. Dr. del Regato is director of the Penrose Cancer Hospital in Colorado Springs.

Tom Green-Eight Counties Society

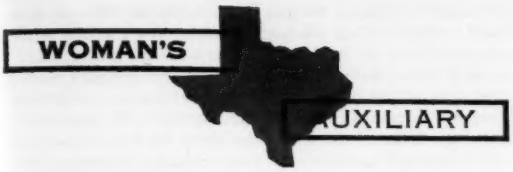
November 7, 1955

The program for the November 7 meeting in San Angelo of the Tom Green-Eight County Medical Society was a symposium on the present day institutional treatment of tuberculosis, dealing with the function of drugs, surgery, and rehabilitation of the patient. Information on several unusual cases was presented by Clyde E. Rush, Sanatorium, of the McKnight Tuberculosis State Hospital.

December 5, 1955

Officers of the Tom Green-Eight County Medical Society who will serve during 1956 are Joe L. Cornelison, president; Francis M. Spencer, vice-president; and K. B. Round, secretary. All the officers are from San Angelo.

At the December 5 meeting in San Angelo, Harvey Renger, Hallettsville, discussed "The Use and Abuse of Insurance by Physicians."



Nurse Recruitment

Many people are engaged in recruiting nurses—and the various county auxiliaries to the Texas Medical Association certainly are doing their share. At the present time, all county groups are carrying on an effective program.

Most interest has been shown in the organization and sponsorship of Future Nurses Clubs in the high schools throughout the state. By cooperating with the school, public health, and other nurses, high school teachers, hospital auxiliaries, and a variety of civic and social organizations, auxiliaries can report now that about a hundred clubs are active. There are now active clubs in most of the 48 states, in Hawaii, Puerto Rico, Alaska, and the Virgin Islands. Mrs. Lillian Taubert, the Coordinator for Nurse Association, in cooperation with the Medical Auxiliary has made a survey of the location of clubs. About five new clubs have been formed since September. Most are in senior high schools, but membership and programs have been tailored to fit the individual clubs.

Each club has created its own style, but Texas clubs have found the manual published by the state Committee on Nurse Recruitment about a year ago especially helpful in setting up organizations. This manual was prepared by the Woman's Auxiliary to the Texas Medical Association, working in close cooperation with the state Committee on Careers in Nursing. A reprint was made during the summer and copies are available.

There is one essential way in which Future Nurses Clubs are alike, and that is in their purpose. They provide a setting in which young people who are interested in nursing as a career can meet together to show their interest, to explore the opportunities and requirements in the field, to grow as individuals by working together, and to learn about the community life in which they soon will participate as informed citizens and possibly as nurses.

The Texas Association of Future Nurses will hold its second convention in Dallas at the Adolphus Hotel, March 24. It is hoped that county auxiliaries and medical societies will help pay expenses for the delegates. Various high schools are approving the use of school busses. The Committee on Nurse Recruitment of the State Auxiliary has worked closely with the Texas League for Nursing and the Texas Graduate Nurses' Association in planning this convention.

A directory of the schools of nursing in Texas will be placed in the state's high schools within the next month. This project was repeated this year at the request of the nursing groups. Additional copies may be secured from the state headquarters of the Woman's Auxiliary, 1801 North Lamar Boulevard, Austin.

In connection with the theme of the President of the Woman's Auxiliary to the Texas Medical Association, "Public Information and Service," it has been suggested to all county auxiliaries that a program on nursing be given for members during the year.

County auxiliaries had $6,311.90 in loans and scholarships for nursing students last year. This project always has been set up on a county basis, but several groups have found it successful to make the loan a gift if the student finishes training. Financial aid was given to about 30 students last year.

Interest in nursing has been aroused in some counties by sponsoring tours and films for high school groups and furnishing speakers for clubs, radio, or television. Exhibits on nursing as a career at county fairs have been an effective way of informing the public.

It is hoped that the work done by the various county groups will help to strengthen the nurse recruitment program in Texas.

MRS. W. D. NICHOLSON, Chairman,
Committee on Nurse Recruitment.

Officers of the Woman's Auxiliary to Texas Medical Association: President, Mrs. Joseph H. McCracken, Jr., Dallas; President-Elect, Mrs. R. C. Bellamy, Liberty; First Vice-President, Mrs. Harold Lindley, Pecos; Second Vice-President, Mrs. William C. Barksdale, Borger; Third Vice-President, Mrs. Scott H. Martin, San Angelo; Fourth Vice-President, Mrs. L. L. D. Tuttle, Houston; Fifth Vice-President, Mrs. John C. Parsons, San Antonio; Treasurer, Mrs. J. C. Terrell, Stephenville; Recording Secretary, Mrs. Franklin Campbell, Fort Worth; Corresponding Secretary, Mrs. O. M. Marchman, Jr., Dallas; Publicity Secretary, Mrs. Joe Thorne Gilbert, Austin; Parliamentarian, Mrs. O. W. Robinson, Paris.

★ County Auxiliaries

A short skit, "Civil Defense—Its Impact on Mental Health," was presented by members of the *Harris County Auxiliary* at its October meeting. The play was written, directed, and produced by members of the auxiliary.

"Emotional Maturity" was Dr. Carl Friedman's topic when he spoke before the *McLennan County Auxiliary* at the home of Mrs. W. W. Brown, Jr., Waco, late in October. Motion pictures served as program material for the *Camp-Morris-Titus, Brazoria,* and *Navarro Counties Auxiliaries.* "Take It Easy" was the film selected by the former group for its October meeting in Mount Pleasant, and the Brazoria group saw "The Waking Point" and "Medical Effects of the Atomic Bomb," two films on civil defense, at their October meeting in Freeport. In Corsicana, a school nurse showed "Losing to Win," a motion picture on obesity, to the *Navarro County Auxiliary.*

Mrs. L. L. Travis, Rusk, was hostess to the *Cherokee County Auxiliary* in her home October 25, and a buffet supper was served. A business meeting followed the supper, and committee chairmen gave short reports.

The *El Paso County Auxiliary* held a joint meeting with the El Paso County Medical Society January 10 after a cocktail hour and dinner. Dr. J. T. Billups, Houston, spoke on medical ethics.

★ District Auxiliaries

Eleventh District Auxiliary

October 20, 1955

The Eleventh District Auxiliary met in Palestine October 20, and Mrs. R. T. Travis, Jacksonville, chairman of the Committee on Mental Health of the State Auxiliary, spoke.

At the conclusion of the business session, the ladies went for coffee to the home of Dr. and Mrs. R. H. Bell, where they were joined by the doctors for a social hour. Dinner was served at the First Methodist Church, where Dr. Milford O. Rouse, Dallas, President-Elect of the Texas Medical Association, was the principal speaker.

RECENT DEATHS

DR. SAM E. THOMPSON

Dr. Samuel Evans Thompson, Past President, former chairman of the Board of Trustees, emeritus member of the Texas Medical Association, and a liberal contributor to the building and operation of the Texas Medical Association Memorial Library, died of arteriosclerosis January 11, 1956, at his home in Kerrville, Texas.

DR. SAM E. THOMPSON

Dr. Thompson was born May 24, 1871, in Claiborne Parish, La. His father was a planter, and his parents were pioneer settlers in that section of the country. When he was 10 years old, he moved with his family to southern Arkansas, where he attended both public and private schools in the neighborhood. After working his way through Hendrix College, Conway, Ark., he returned to his home and taught school, farmed, and sold school supplies for three years. He worked his way through the Kentucky School of Medicine, Lexington (now the University of Louisville). Passing the required medical examination in 1902, he practiced medicine in El Dorado, Ark., two years before receiving his doctor of medicine degree in 1904. He remained in El Dorado until 1911, doing postgraduate work during that time at the Poly Clinic in New Orleans. In the latter year, he became ill with tuberculosis and went to San Angelo to regain his health. Since then, he had devoted his medical practice entirely to the treatment of tuberculosis. In 1913, Dr. Thompson became medical director of the Texas State Tuberculosis Sanatorium, Carlsbad (now McKnight State Hospital), a position which he held four years. He then purchased a sanatorium in Kerrville, which he rebuilt and operated as Thompson's Sanatorium until 1936, when it was sold to the state.

Throughout his career, Dr. Thompson was an active supporter of organized medicine and held positions of trust in many groups. A member of the Texas Medical Association since 1915, he had been a member of the Council on Scientific Work and the Council on Legislation and Public Instruction, and was chairman of the Section on Public Health in 1931. In 1934-1935, he served as President of the Association. Elected to the Board of Trustees four years later and its chairman the next year, Dr. Thompson served in that capacity until 1946; in addition to these positions, he was a delegate to the American Medical Association for 12 years. He was elected an emeritus member in 1948 but characteristically insisted on paying regular dues several years thereafter.

In appreciation of their $50,000 bequest for the Association's Memorial Library, the Board of Trustees voted to name the auditorium-lounge of the central office and library building in honor of Dr. and Mrs. Thompson. Dr. Thompson also had given his personal library to the Association.

Dr. Thompson played a large part in the organization of the International Postgraduate Assembly of San Antonio, and in 1950, this organization presented him a bronze plaque for his work in its founding. The Mexican Medical Association of Military Affairs, the members of which had benefited from the Assembly, conferred honorary membership on him in 1933.

He was a member of the Kerr-Kendall-Gillespie-Bandera Counties Medical Society, the American Trudeau Society, and Societas Celsana in Urbe, Sancti Antonii; a charter member of the Southern Medical Association; a life member of the American College of Physicians, the American College of Chest Physicians, and the American Medical Association of Vienna; and a diplomate of the American Board of International Medicine. He served three consecutive terms as president of the Fifth and Sixth Districts Medical Society.

Dr. Thompson continued to study medicine during his years of practice; he spent one year working in New York and Saranac Lake, and in 1928, he attended clinics in Paris, London, Berne, Zurich, Berlin, and Vienna. He had several papers published in medical journals.

He did not confine his interests to medical activities; he was governor of his district of Rotary International for two years, having joined that organization as a charter member and served as first president of the Kerrville chapter. He was a member of the Knights of Pythias Lodge, the Benevolent and Protective Order of Elks, and the Chamber of Commerce, and of the Junior Chamber of Commerce, in which he was tremendously interested, for several years. He had taken an active interest in young people, and not only had worked closely with the Boy Scouts and other boys' and girls' clubs, but had given financial help to several youths who desired higher education—some studying in his own field, medicine.

During World War II, he was chairman of the Eighth Corps Area of Procurement and Assignment of Physicians, which covered Arizona, Colorado, and New Mexico at first

An obituary ordinarily will not be published more than four months after date of death. Cooperation in reporting deaths of physicians and in furnishing appropriate biographical material promptly is solicited.

and later was reduced to New Mexico, Louisiana, Texas, and Arkansas. This demanded much of his time and a great deal of traveling for which he received no reimbursement.

Mrs. Thompson, born Annie Lee Pinson, and Dr. Thompson were married August 13, 1914, in El Dorado. Mrs. Thompson, sharing her husband's enthusiasm for medical activities, is a Past President of the Woman's Auxiliary to the Texas Medical Association and a charter member of her county auxiliary. In addition to Mrs. Thompson, the doctor is survived by two stepsons, Francis E. Melear, Amarillo, and J. W. Melear, Los Angeles.

The Executive Council of the Texas Medical Association in session in Austin on January 22, 1956, adopted a resolution in tribute to Dr. Thompson.

DR. J. C. SMITH

Dr. John Charles Smith, Winona, died of pneumonia December 7, 1955, in a Galveston, Texas, hospital.

Dr. Smith was born December 11, 1870, in St. Louis, and was the son of Julius and Hilda Smith. Receiving his preliminary education in the public schools, Dr. Smith came to Smith County as a youth and began practicing medicine at Starrville about 1898. He began his medical training at the University of Texas Medical Branch, Galveston, and completed his studies in 1902, when he was graduated from Tulane University School of Medicine, New Orleans. In 1952, he received an honorary degree from Tulane University, signifying 50 years of medical practice since his graduation. In 1911, Dr. Smith moved to Winona, where he continued to practice throughout his medical career.

He had been a member of the Texas Medical Association through the Smith County Medical Society throughout his career, and was elected to honorary membership in 1952. He was a member of the American Medical Association, the Masonic Lodge, and the Baptist Church.

Miss Edna Butler and Dr. Smith were married May 11, 1908, in Tyler. Mrs. Smith survives, as do four sons, Fred Smith, Abilene; Marion Smith, Jacksboro; Dr. J. E. Smith, Weatherford; and Dr. R. W. Smith, Dallas; and a brother, Otto Smith, Long Beach, Calif.

DR. RUSSELL S. BUTAUD

Dr. Russell Sterling Butaud, Bay City, Texas, died December 24, 1955, of burns received when his ranch cabin near Pennington burned.

He was born October 18, 1903, in Abbeville, La., and attended high school in Port Arthur. He completed his premedical training at Tulane University of Louisiana, New Orleans, and was graduated from the Tulane University School of Medicine in 1932. The following year, he interned at the Methodist Hospital, Houston, then practiced medicine in Houston until 1943, when he entered the Army Medical Corps. He retired from military service in 1945 because of a residual myocardial infarction, and resumed his practice in 1950. His health forced him to discontinue private practice in 1951. Dr. Butaud returned to Tulane University and earned his master of public health degree in 1953, and since 1954 he had served as director of the Matagorda and Fort Bend Counties Health Unit.

Dr. Butaud had been a member of the Texas Medical Association through the Harris or Wharton-Jackson-Matagorda-Fort Bend Counties Medical Societies since 1935. He was elected to honorary membership in the Association in 1947, but resumed his regular membership and membership in the American Medical Association in 1954. He also was a member of the Texas and American Public Health Associations.

Dr. Butaud is survived by his wife, Bay City, and two sons, Russell S. Butaud, Jr., and John Michael Butaud, both of Houston.

DR. ARRANDA A. HUGHES

Dr. Arranda Alphonso Hughes died January 8, 1956, in a Houston, Texas, hospital after a cerebral hemorrhage.

Dr. Hughes had practiced otolaryngology in Houston for 16 years. Born April 14, 1888, in Dermott, Ark., he was the son of Dr. William Marion and Georgia Ann (Boyette) Hughes. His two brothers also were doctors. He received his preliminary education at Wilmer High School and Beauvoir College in Wilmer, Ark., and was graduated from the University of Tennessee College of Medicine, Memphis, in 1910. He later took postgraduate work in eye, ear, nose, and throat at New York Postgraduate Medical School, a branch of Columbia University, in New York City.

DR. ARRANDA A. HUGHES

Dr. Hughes had practiced medicine in Philadelphia and in Pine Bluff before moving in 1939 to Texas to join the medical department of the Humble Oil and Refining Company in Baytown. In 1947, he went to Arkansas and practiced six years before returning to begin his private practice in Houston.

He was a member of the Texas and American Medical Associations through the Harris County Medical Society, and was a diplomate of the American Board of Otolaryngology. He also was a member of the Southern Medical Association, Theta Kappa Psi medical fraternity, the East End Lions Club, and the Episcopal Church. He was a Scottish Rite Mason, and a member of the Department of Commerce's Bureau of Air Commerce.

Dr. Hughes was a lieutenant commander in the Naval Reserve. As hobbies, he liked to hook rugs, work crossword puzzles, and grow roses and chrysanthemums.

On December 14, 1940, Miss Lizbeth Puddephatt, Pine Bluff, and Dr. Hughes were married in Rosenberg. Sur-

vivors include Mrs. Hughes and sons, Rann Dow, 13, and Dann Puddephatt, 10, all of Houston, and a third son, Arranda Hughes, Jr., and a daughter, Mrs. Anthony Taibe, both of Los Angeles.

DR. W. E. PAYNE

Dr. William Everett Payne, Slaton, Texas, died at his home October 21, 1955, of a coronary occlusion.

He was born May 24, 1887, in Myrtle, Mo., and was the son of Margaret Jane (Taylor) and Francis Marion Payne. He attended the Eastland County public schools, and was graduated from Scranton High School. Dr. Payne then entered the Georgia College of Eclectic Medicine and Surgery, Atlanta, and was valedictorian of his class of 1911. Practicing seven years in O'Brien, he then moved to Cisco, where

DR. W. E. PAYNE

he practiced from 1918 until 1924. At that time, Dr. Payne settled in Slaton, where he continued active practice until the time of his death.

A charter staff member of the Mercy Hospital, Dr. Payne was active in securing the hospital for Slaton. He was an honorary member of the Texas Medical Association, having been a member during most of his career through the Knox-Haskell, Eastland, or Lubbock Counties Medical Societies. He was a charter member of the Haskell County Society when it was organized in 1911, and was a member of the American Medical Association. Dr. Payne for 22 years was city health officer, a position which he held at the time of his death; had served as local physician for the Santa Fe Railroad for 25 years; and had been a Red Cross first aid instructor since World War I. During World War II, he was a major in the Texas National Guard Medical Corps.

He was a member of the school board for eight years and of the Baptist Church for more than 50 years, and a charter member of the Chamber of Commerce of Slaton, which twice honored him as an outstanding citizen. He was a member and past president of the Slaton chapter of Rotary International, and was a Scottish Rite Mason and a member of the Shrine. On December 31, 1955, his friends held an open house for Dr. Payne and presented him with a bronze plaque in tribute to his 30 years of service as a counselor, civic leader, and physician.

On December 24, 1911, Miss Mae Cartwright and Dr. Payne were married in Knox County. Mrs. Payne survives; other survivors include a daughter, Dr. Beatrice P. Knight, Houston; a brother, Eugene F. Payne, O'Donnell; two sisters, Mrs. Mina Waldrep, Lamesa, and Mrs. Mary Tidwell, Seagraves; and three granddaughters, Bette Camille, Susan Rozelle, and Catherine Payne Knight, all of Houston. A son, Avery Powell Payne, died in 1944.

DR. A. J. POPE

Dr. Andrew Jackson Pope, La Feria, Texas, died December 16, 1955, in a Harlingen hospital after a coronary thrombosis.

He was born March 1, 1868, in Aberdeen, Miss., to Andrew Jackson and Caroline (Savage) Pope, and received his preliminary education in Howston, Miss., and Louisville, Ky. Dr. Pope completed studies for his medical degree at the University of the South Medical Department, Sewanee, Tenn., in 1904, and interned at the Charity Hospital, Vicksburg, Miss. Shortly after his graduation, Miss Robbie J. Williams and Dr. Pope were married in Hanna, Okla., where Dr. Pope practiced for the next 22 years. Moving to Texas in 1926, he practiced in McAllen and San Antonio before settling in 1929 in La Feria.

DR. A. J. POPE

Elected to honorary membership in the Texas Medical Association in 1952, Dr. Pope had been a member of the Association during most of his professional career in Texas. While in Oklahoma, he was a member of that state's medical association. He also was a member of the Cameron-Willacy Counties Medical Society, the American Medical Association, the Masonic Lodge, and the Baptist Church. In 1950, the La Feria Kiwanis Club honored Dr. Pope at a banquet, and presented him with a plaque commemorating his many years as a practicing physician.

Dr. Pope was the last of a family of six children. He is survived by Mrs. Pope and one daughter, Miss Lou Ethel Pope, both of La Feria.